

KODIAK MANAGEMENT AREA
SALMON ESCAPEMENT AND CATCH SAMPLING RESULTS, 2002



By

M. B. Foster
and
Mark J. Witteveen

Regional Information Report¹ No. 4K03-43

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615

August 2003

¹ The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished division reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

AUTHORS

Matt Birch Foster is a Region IV Finfish Research Biologist for the Alaska Department of Fish and Game, Division of Commercial Fisheries, 211 Mission Road, Kodiak, AK 99615.

Mark J. Witteveen is a Region IV Finfish Research Biologist for the Alaska Department of Fish and Game, Division of Commercial Fisheries, 211 Mission Road, Kodiak, AK 99615.

ACKNOWLEDGMENTS

Kodiak Management Area (KMA), Alaska Department of Fish and Game, Division of Commercial Fisheries, salmon management and research seasonal staff collected the data presented in this report. The authors would like to thank Ani Thomas, Alexia Kinsley, Gretchen Patterson, Paula Jackson, Dan Costello, and John Sikes for their efforts in collecting KMA catch sample data. In addition, the authors would like to acknowledge Carl Peterson, Michael Peel, Chris Bond, Dan Roberts, Geoff Spalinger, Greg Watchers, Joey Lindberg, Cedar Cussins, Tim Chiles, Brendan Schettiz, Ty Swanson, Amanda Bowers, Wes Ghormley, Hector Bravo, Jack Malutin, Leanne Rosenkranz, Steven Altman, Shelly Lawson, Joyce Soong, Robin Overall, Leanne Schmelzenbach, Lynden Grothe and U.S. Fish and Wildlife personnel Rebecca Smith and Kara Krumenauer for collecting age, length and sex data from KMA sockeye salmon escapements or terminal harvest areas. Rob Baer, Ani Thomas, and Matt Foster aged all sockeye salmon catch and escapement scales. Matt Ford, Charlie Burkey, and Rob Baer provided editorial advice and Lucinda Neel contributed publication expertise.

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES	i
LIST OF FIGURES	vii
ABSTRACT.....	1
INTRODUCTION.....	2
METHODS	3
Adult Salmon Escapement and Catch Estimates	3
Adult Salmon Escapement and Catch Sampling.....	4
Sockeye Salmon Run Reconstruction Estimates	5
Spiridon Lake	5
Karluk Lake	5
Early Run	5
Late Run	5
Red Lake (Ayakulik River).....	6
Frazer Lake (Dog Salmon Creek)	6
Olga Lakes (Upper Station)	6
Early Run	6
Late Run	6
RESULTS	7
Adult Sockeye Salmon Escapement Abundance, Age, Sex, and Size Data	7
Commercial Salmon Catch Abundance and Age Data.....	7
Sockeye Salmon Run Reconstruction Estimates	8
Spiridon Lake	8
Karluk Lake	8
Early Run	8
Late Run	8
Red Lake (Ayakulik River).....	8
Frazer Lake (Dog Salmon Creek)	9
Olga Lakes (Upper Station)	9
Early Run	9
Late Run	9
LITERATURE CITED	10
TABLES	12
FIGURES.....	99

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1. Sampling weeks and corresponding calendar dates, 2002		12
2. Sockeye salmon escapement sampling schedule for the Kodiak Management Area, 2002		13
3. Sockeye salmon catch sampling schedule for the Kodiak Management Area, 2002.....		14
4. Daily and cumulative sockeye salmon escapement counted through weirs by system (four major systems), Kodiak Management Area, 2002.....		15
5. Daily and cumulative sockeye salmon escapement counted through weirs by system (seven minor systems), Kodiak Management Area, 2002.....		20
6. Estimated age composition of sockeye salmon escapements by system, Kodiak Management Area, 2002.....		25
7. Estimated age composition of Malina Lakes sockeye salmon escapement by week, 2002		27
8. Length composition of Malina Lakes sockeye salmon escapement samples by age and sex, 2002.....		28
9. Estimated sex composition of Malina Lakes sockeye salmon escapement by week, 2002		29
10. Estimated age composition of Pauls Lake (Laura) sockeye salmon escapement, 2002.....		30
11. Length composition of Pauls Lake (Laura) sockeye salmon escapement samples by age and sex, 2002.....		31
12. Estimated sex composition of Pauls Lake (Laura) sockeye salmon escapement, 2002.....		32
13. Estimated age composition of Afognak Lake (Litnik) sockeye salmon escapement by week, 2002.....		33
14. Length composition of Afognak Lake (Litnik) sockeye salmon escapement samples by age and sex, 2002.....		34
15. Estimated sex composition of Afognak Lake (Litnik) sockeye salmon escapement by week, 2002.....		35

LIST OF TABLES (Cont.)

<u>Table</u>		
		<u>Page</u>
16. Estimated age composition of Little River Lake sockeye salmon escapement, 2002.....	36	
17. Length composition of Little River Lake sockeye salmon escapement samples by age and sex, 2002.....	37	
18. Estimated sex composition of Little River Lake sockeye salmon escapement by week, 2002	38	
19. Estimated age composition of Karluk Lake early-run sockeye salmon escapement by week, 2002.....	39	
20. Length composition of Karluk Lake early-run sockeye salmon escapement samples by age and sex, 2002.....	40	
21. Estimated sex composition of Karluk Lake early-run sockeye salmon escapement by week, 2002.....	41	
22. Estimated age composition of Karluk Lake late-run sockeye salmon escapement by week, 2002.....	42	
23. Length composition of Karluk Lake late-run sockeye salmon escapement samples by age and sex, 2002.....	43	
24. Estimated sex composition of Karluk Lake late-run sockeye salmon escapement by week, 2002.....	44	
25. Estimated age composition of Red Lake (Ayakulik River) sockeye salmon escapement by week, 2002.....	45	
26. Length composition of Red Lake (Ayakulik River) sockeye salmon escapement samples by age and sex, 2002.....	46	
27. Estimated sex composition of Red Lake (Ayakulik River) sockeye salmon escapement by week, 2002.....	47	
28. Estimated age composition of Olga Lakes (Upper Station) early-run sockeye salmon escapement by week, 2002	48	
29. Length composition of Olga Lakes (Upper Station) early-run sockeye salmon escapement samples by age and sex, 2002.....	49	

LIST OF TABLES (Cont.)

<u>Table</u>		<u>Page</u>
30. Estimated sex composition of Olga Lakes (Upper Station) early-run sockeye salmon escapement by week, 2002	50	
31. Estimated age composition of Olga Lakes (Upper Station) late-run sockeye salmon escapement, 2002	51	
32. Length composition of Olga Lakes (Upper Station) late-run sockeye salmon escapement samples by age and sex, 2002	52	
33. Estimated sex composition of Olga Lakes (Upper Station) late-run sockeye salmon escapement, 2002	53	
34. Estimated age composition of Frazer Lake sockeye salmon escapement by week, 2002.....	54	
35. Length composition of Frazer Lake sockeye salmon escapement samples by age and sex, 2002	55	
36. Estimated sex composition of Frazer Lake sockeye salmon escapement by week, 2002.....	56	
37. Estimated age composition of Saltery Lake sockeye salmon escapement, 2002	57	
38. Length composition of Saltery Lake sockeye salmon escapement samples by age and sex, 2002.....	58	
39. Estimated sex composition of Saltery Lake sockeye salmon escapement, 2002.....	59	
40. Estimated age composition of Akalura Lake sockeye salmon escapement, 2002.....	60	
41. Length composition of Akalura Lake sockeye salmon escapement samples by age and sex, 2002	61	
42. Estimated sex composition of Akalura Lake sockeye salmon escapement, 2002	62	
43. Kodiak Management Area commercial salmon harvest by species and year, 1970 through 2002	63	
44. Commercial salmon catch numbers and weight by species, district, and section, Kodiak Management Area, 2002	64	

LIST OF TABLES (Cont.)

<u>Table</u>		<u>Page</u>
45. Estimated age composition of commercial sockeye salmon catches by sample area, Kodiak Management Area, 2002.....		67
46. Estimated age composition of Foul Bay terminal harvest area (251-41) sockeye salmon catch, 2002		68
47. Length composition of Foul Bay terminal harvest area (251-41) sockeye salmon catch samples by age and sex, 2002		69
48. Estimated sex composition of Foul Bay terminal harvest area (251-41) sockeye salmon catch, 2002		70
49. Estimated age composition of Waterfall Bay terminal harvest area (251-84) sockeye salmon catch by week, 2002.....		71
50. Length composition of Waterfall Bay terminal harvest area (251-84) sockeye salmon catch samples by age and sex, 2002.....		71
51. Estimated sex composition of Waterfall Bay terminal harvest area (251-84) sockeye salmon catch by week, 2002.....		72
52. Estimated age composition of Malina Bay THA (251-12) commercial sockeye salmon catch, 2002		73
53. Estimated age composition of Southwest Afognak Section (251-10, 20) commercial sockeye salmon catch, 2002		74
54. Estimated age composition of Uganik-Viekoda Bays (253-11, 12, 13, 14, 31, 32, 33, 35) commercial sockeye salmon catch, 2002		75
55. Estimated age composition of Uyak Bay (254-10, 20, 30, 40) commercial sockeye salmon catch, 2002.....		76
56. Age composition of Hook Point sockeye salmon catch samples by day, 2002		77
57. Length composition of Hook Point sockeye salmon samples by age and sex, 2002.....		77
58. Estimated age composition of Spiridon Lake (Telrod Cove) sockeye salmon terminal harvest by week, 2002		78
59. Length composition of Spiridon Lake (Telrod Cove) sockeye salmon terminal harvest samples by age and sex, 2002		79

LIST OF TABLES (Cont.)

<u>Table</u>		<u>Page</u>
60. Estimated sex composition of Spiridon Lake (Telrod Cove) sockeye salmon terminal harvest by week, 2002	80	
61. Estimated age composition of Inner and Outer Karluk Sections (255-10, 20) commercial sockeye salmon catch, 2002	81	
62. Estimated age composition of Sturgeon Section (256-40) commercial sockeye salmon catch, 2002	82	
63. Estimated age composition of Inner and Outer Ayakulik Sections (256-10, 15, 20) commercial sockeye salmon catch, 2002	83	
64. Age composition of Alitak Bay (Chip Cove) test fishery sockeye salmon catch samples by week, 2002.....	84	
65. Estimated age composition of Humpy-Deadman Section (257-50, 60, 70) commercial sockeye salmon catch by week, 2002	85	
66. Spiridon Lake sockeye salmon estimated catch by area and estimated total run by age class, 2002	86	
67. Karluk Lake early-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.....	87	
68. Karluk Lake early-run sockeye salmon brood table showing estimated returns from parent escapements by age class.....	88	
69. Karluk Lake late-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.....	89	
70. Karluk Lake late-run sockeye salmon brood table showing estimated returns from parent escapements by age class.....	90	
71. Red Lake (Ayakulik River) sockeye salmon, estimated catch by area, escapement, and estimated total run by age class, 2002.....	91	
72. Red Lake (Ayakulik River) sockeye salmon brood table showing estimated returns from parent escapements by age class	92	
73. Frazer Lake (Dog Salmon Creek) sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.....	93	
74. Frazer Lake (Dog Salmon Creek) sockeye salmon brood table showing estimated returns from parent escapements by age class	94	

LIST OF TABLES (Cont.)

<u>Table</u>		<u>Page</u>
75. Olga Lakes (Upper Station) early-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.....		95
76. Olga Lakes (Upper Station) early-run sockeye salmon brood table showing estimated returns from parent escapements by age class		96
77. Olga Lakes (Upper Station) late-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.....		97
78. Olga Lakes (Upper Station) late-run sockeye salmon brood table showing estimated returns from parent escapements by age class		98

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1. Map of the Kodiak Management Area identifying commercial salmon fishing districts		99
2. Salmon escapement sampling locations in the Kodiak Management Area, 2002.....		100
3. Map of the Afognak District identifying commercial salmon fishing sections and statistical areas		101
4. Map of the Northwest Kodiak District identifying commercial salmon fishing sections and statistical areas.....		102
5. Map of the Southwest Kodiak and Alitak Bay Districts identifying commercial salmon fishing sections and statistical areas.....		103
6. Map of the Northeast Kodiak and Eastside Kodiak districts identifying commercial salmon fishing sections and statistical areas.....		104
7. Map of the Mainland District identifying commercial salmon fishing sections and statistical areas		105
8. Spiridon Lake sockeye salmon catch (run) estimates, 1994-2002, and the recent 5-year average estimated run (1992-2001).....		106
9. Karluk Lake early-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001)		107
10. Karluk Lake late-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001)		108
11. Red Lake (Ayakulik River) sockeye salmon escapement, catch, and run estimates, 1977-2002, and the recent 10-year average estimated run (1992-2001)		109
12. Frazer Lake sockeye salmon escapement (Dog Salmon weir counts), catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001).		110
13. Olga Lakes (Upper Station) early-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001)		111

LIST OF FIGURES (Cont.)

<u>Figure</u>	<u>Page</u>
14. Olga Lakes (Upper Station) late-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001)	112

ABSTRACT

A total of 1.65 million sockeye salmon *Oncorhynchus nerka* were counted as escapement through salmon counting weirs in the Kodiak Management Area (KMA) during 2002. Adult sockeye salmon were sampled for age, length, and sex determination from weired systems in the KMA. A total of 11,400 scale samples were used to represent a combined escapement of 1,414,231 sockeye salmon or about 86% of the total escapement counted through weirs. The sampled escapement was predominantly 5-and 6-year-old fish classified as age 2.2 (37%) and 2.3 (32%); however, the primary age classes varied by system.

The 2002 commercial salmon harvest for the KMA totaled 21.3 million fish, which exceeded the recent 5-year average of 19.4 million fish. The commercial harvest consisted of approximately 19 thousand chinook *O. tshawytscha*, 1.8 million sockeye, 0.5 million coho *O. kisutch*, 18.3 million pink *O. gorbuscha*, and 650 thousand chum *O. keta* salmon. A total of 16,382 sockeye salmon were sampled for age determination from a variety of catch areas throughout the KMA. Of these samples, 15,298 scales were used to represent a combined harvest of approximately 1.3 million fish. The overall sampled catch was predominantly age 2.2 (36%), 1.2 (20%), and 1.3 (18%) fish; however, primary age classes varied by section and district.

Total sockeye salmon run estimates were formulated for seven stocks, including Spiridon Lake, Karluk Lake early and late runs, Red Lake (Ayakulik River), Frazer Lake (Dog Salmon Creek), and the Olga Lakes (Upper Station) early and late runs. The Spiridon Lake sockeye salmon run estimate of 491,629 was above the estimated 5-year (1997-2001) average run of 234,681 sockeye salmon. Age 1.2 fish accounted for about 36.1% of the run and age 1.3 fish accounted for about 35.8% of the run. The 2002 estimated Karluk Lake early sockeye salmon run of 623,880 fish was predominantly age 2.2 and 2.3 fish. This run was slightly lower than the 2001 estimated run, but above the recent 10-year average of 529,419 fish. The Karluk Lake late sockeye salmon run, estimated at 866,019 fish, was below the estimated 2001 run of 872,527 fish but above the recent 10-year average of 741,927 fish. Similar to the 2001 Karluk Lake early run, age 2.2 and 2.3 fish were predominant. The 2002 Red Lake (Ayakulik River) sockeye salmon estimated run was 235,797, which was well below the recent 10-year average of 783,259 fish and the lowest since 1983. Age 2.3 fish were predominant (61%) followed by age 2.2 (14.8%) and 1.2 (12.6%) fish. The Frazer Lake (Dog Salmon Creek) sockeye salmon run estimate of 110,226 fish was significantly lower than the 2001 run, below the recent 10-year average of 565,147 fish and the lowest run since 1987. About 47% of the run was classified as 6-year-old fish (predominantly age 2.3). The 2002 Upper Station early sockeye salmon run estimate was 36,709, with age 2.3 fish predominating the run. This estimated run was much smaller than the 2001 run and much lower than the recent 10-year average of 121,859 fish. The Upper Station late sockeye salmon run, which was predominantly age 2.2, was estimated at 159,621 fish. The 2002 Upper Station late run was smaller than the 2001 run and below the recent 10-year average of 470,319 fish.

INTRODUCTION

The Kodiak Management Area (KMA) encompasses western Gulf of Alaska waters surrounding the entire Kodiak Archipelago and that portion of the Alaska Peninsula draining into Shelikof Strait from Cape Douglas to Kilokak Rocks (Figure 1). The archipelago and Alaska Peninsula portions of the management area are each about 241 km in length, while Shelikof Strait averages 48 km in width.

There are about 800 anadromous salmon streams located throughout the KMA (ADF&G 1993). These systems combined support five commercially important salmon species: chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. About 39 of these systems support various sizes of sockeye salmon runs (Wadle 2001).

Weirs provide the primary mode of enumeration for virtually all chinook salmon and a majority of the sockeye salmon escapements into area streams (Figure 2; Brodie 2000). Remaining streams are monitored by aerial and foot surveys for indexing pink, chum, and coho salmon escapements (Wadle 2001).

The KMA is composed of seven commercial salmon fishing districts and 56 sections (Figures 1 and 3-7). The emphasis of the salmon management program is to achieve escapement goals while harvesting surplus production of local stocks in an orderly fashion. Five species of salmon are commercially harvested within the KMA, all of which have established escapement goals. The “targeted” escapement goals for KMA salmon are: 11 thousand to 18 thousand chinook, 1.3 million to 1.8 million sockeye, 1.0 million to 3.0 million pink (even year), 55 thousand to 94 thousand coho, and 273 thousand to 819 thousand chum salmon (Nelson and Lloyd 2001). Directed commercial fisheries occur on sockeye, pink, chum, and coho salmon; chinook salmon are not targeted. To open and close the fishery inseason, managers employ qualitative analyses of run timing, catch per unit effort (CPUE), species composition of the catch, regulatory management plans, aerial survey estimates, test fisheries, and weir escapement counts (Wadle 2001).

The Alaska Board of Fisheries (BOF) has approved area salmon management plans for the Cape Igvak Section of the Mainland District, Alitak Bay District, North Shelikof Strait, Westside Kodiak, Eastside Afognak, Crescent Lake, Spiridon Lake, Eastside Kodiak, Mainland District, and North Afognak/Shuyak Island (ADF&G 2002a). The intent of these plans is to maintain traditional commercial fishing opportunities and subsequent harvest allocations, stock conservation, and provide for a high quality salmon product.

Age, length, and sex composition of KMA sockeye salmon escapements have been collected under the direction of various researchers and agencies since the mid 1920s. The Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries (CF), initiated an expanded catch and escapement sampling program focusing on sockeye salmon in 1985. The purpose of this program was to collect representative age, length, and sex data from major sockeye salmon systems as well as representative age data from selected commercial sockeye salmon catches. These data continue to expand the KMA salmon baseline database.

These samples are used to reconstruct numerous sockeye salmon runs, employing age marker analysis and scale pattern identification methods to estimate specific stock contributions to commercial fisheries in the KMA (Swanton 1992, Barrett and Nelson 1994, Barrett and Nelson 1995, Nelson and Swanton 1996, Nelson and Swanton 1997, Nelson 1999, Sagalkin 1999 Baer and Honnold 2002). Accordingly, these samples provide the foundation for preseason run forecasting and escapement goal evaluation.

This report summarizes the results of the 2002 KMA salmon escapement and catch sampling program. The purpose of this report is to serve as a compilation of data; therefore, interpretation and discussion of these data are limited.

METHODS

Adult Salmon Escapement and Catch Estimates

Salmon escapement enumeration was accomplished via weir counts at 13 systems throughout the KMA in 2002. Major systems enumerated by ADF&G, CF personnel included: Karluk, Red (Ayakulik River), Frazer (Dog Salmon Creek), and Olga Lakes (Upper Station). A weir was located both on Dog Salmon Creek and at the Frazer fish pass within the same sockeye salmon system to facilitate timely management, maintenance, and operation of the fishpass. Minor systems with weirs operated by ADF&G, CF personnel included: Malina Lake, Pauls Lake, Afognak (Litnik) River, Saltery River, and Akalura Lake. The Division of Commercial Fisheries also operated weirs at Big Bay Creek and Bear Creek on Shuyak Island, primarily to enumerate coho salmon. ADF&G, Division of Sportfish monitored salmon escapement through a weir on the Buskin River. U.S. Fish and Wildlife Service (FWS) employees (through the Kodiak National Wildlife Refuge) monitored escapement through the Little River weir and participated in escapement enumeration at Akalura Lake.

Escapements at weirs were counted by technicians and field biologists using hand tally counters as fish migrated upstream through aluminum panel gates. These counts were treated as a census with minor adjustments made to the total counts only when high water events washed out weirs or after weir removal at season's end. When escapements were not directly counted, they were estimated by foot surveys conducted by field personnel.

KMA salmon catch numbers for the 2002 season were obtained from summary reports of individual harvest receipts (fish tickets). The fish ticket database was edited by Kodiak area salmon management biologists prior to summary reports being generated on 4 February 2003.

Adult Salmon Escapement and Catch Sampling

Sockeye salmon escapements were sampled weekly for age (scales), length, and sex (ALS), at Karluk Lake, Ayakulik River, Upper Station, and Frazer Lake weirs (Figure 2; ADF&G 2002b). Sampling weeks and associated calendar dates are presented in Table 1. Fish were collected using a live-box trap attached to the upstream side of the weir. Ideally, three samples of 80 fish were collected weekly on alternating days to meet the required weekly sample size of 240 fish. Within-week adjustments were made in the schedule when necessary to obtain the full sample. The weekly escapement sample size enabled all age classes to be simultaneously estimated at $\alpha=0.10$ within $\pm 6.5\%$ of the true proportions (Thompson 1987). Smaller systems (Figure 2) were sampled with reduced intensity following the sampling schedule listed in Table 2. Afognak (Litnik) weir personnel attempted to collect three ALS samples of 480 fish from the early, middle, and late sockeye salmon run components. At Malina weir the total sample goal was 600 fish and ALS samples were collected throughout the escapement period when sufficient numbers of adult sockeye salmon were available. Pauls Lake sockeye salmon escapement samples were collected using a beach seine at the confluence of Laura Creek and Pauls Lake with a targeted sample goal of 200 fish biweekly (for a total of 600 fish). Additionally, 240 fish per week were sampled for ALS from the Spiridon Lake Terminal Harvest Area (SLTHA) to represent the Spiridon Lake sockeye salmon run. Both Saltery and Akalura Rivers were sampled intermittently during 2002. Division of Sport Fish field personnel sampled the Buskin River sockeye salmon escapement with a goal of 114 fish every two weeks, for six weeks (Donn Tracy Alaska Department of Fish and Game, Kodiak, personal communications).

Designated commercial sockeye salmon catches were sampled weekly for age during commercial fisheries (ADF&G 2002b, Table 3). The catch sample size of 400 fish per week enabled all age classes to be simultaneously estimated within $\pm 6.5\%$ of the true proportion with 95% confidence (Thompson 1987).

Catch samples were collected at processing facilities located in the Port of Kodiak, and Lazy Bay (Figure 1). The catch sampling crew obtained fish ticket information before collecting samples to determine if the fish were exclusively harvested from a designated catch section. If fish ticket data were not available, the sampling crew interviewed the processing facility dock foreman or tender operator. Once fish ticket information became available, the origin of the catch was confirmed.

All scales, when possible, were collected from the preferred area of each fish following procedures outlined in INPFC (1963). Scales were mounted on scale “gum” cards and impressions were made on cellulose acetate (Clutter and Whitesel 1956). Fish ages were assigned by examining scale impressions for annual growth increments using a microfiche reader fitted with a 48X lens following designation criteria established by Mosher (1968). Ages were recorded on sampling forms using European notation (Koo 1962) where a decimal separates the number of winters spent in fresh water (after emergence) from the number of winters spent in salt water. The total age of the fish includes an additional year representing the time between egg deposition and emergence of fry. Length measurements were taken from mid eye to tail fork (METF) in mm and sex was determined from external morphological characteristics. All data were recorded on standard age-weight-length (AWL) data forms. AWL forms were digitally scanned and edited for errors.

Age, length, and sex statistics were computed for each escapement sampled. Age and sex composition estimates were interpolated daily between sampling events and summarized weekly when targeted sampling goals were achieved. When limited samples were obtained, the age composition was estimated to reflect the sampling period only. Length composition data were summarized by age and sex representing only the fish sampled.

When weekly targeted catch sample sizes were obtained, catch-at-age by area and day was estimated by multiplying the daily age composition of a particular sample by the daily catch from the corresponding catch area. Age composition of the catch from days not sampled was estimated using linear interpolation between sampling events. When limited catch samples were obtained for a selected catch area, age composition estimates reflect only that portion of the catch associated with the samples obtained. Descriptions of component programs used to compute age, length, and sex composition summaries can be found in Blackburn (1993).

Sockeye Salmon Run Reconstruction Estimates

Spiridon Lake

The SW Afognak Section, NW Kodiak District, and SLTHA sockeye salmon commercial catch numbers were obtained from the ADF&G fish ticket database in February 2003. In lieu of formal stock separation analyses in 1998 through 2002, the 1994-1997 average estimated proportion of harvest occurring in the SLTHA was used to calculate the number of Spiridon Lake sockeye salmon harvested in the SW Afognak Section and NW Kodiak District combined. This catch estimate was combined with the SLTHA sockeye salmon catch to estimate the 2002 Spiridon Lake run. This enhanced run was fully utilized; therefore, there was no escapement. The age composition of the SLTHA commercial catch samples was applied to the total Spiridon Lake run to estimate the run by age class.

Karluk Lake

A natural age marker (age 3.) was used to estimate the number by age class of Karluk Lake bound sockeye salmon harvested in the westside Kodiak commercial fishery. Early and late-run numbers were estimated separately.

Early Run. The number of Karluk Lake bound sockeye salmon harvested in Uganik, Uyak, and Inner and Outer Karluk Sections (no fishing occurred in the Sturgeon Section during 2002) through 15 July was estimated following the methods described in Barrett and Nelson (1995). The total Karluk Lake early-run estimate was calculated by summing the escapement and assigned catch numbers by age class. Estimates by age class were assigned to the parent year (brood year) escapement and return-per-spawner (R/S) estimates were calculated by dividing total return by its respective parent year escapement.

Late Run. The number of Karluk Lake bound sockeye salmon harvested in Uganik, Uyak, Sturgeon, and Inner and Outer Karluk Sections post 15 July were estimated following the methods described in

Barrett and Nelson (1995). The total Karluk late-run estimate was determined by summing the escapement and assigned catch numbers by age class. Estimates by age class were assigned to the parent year (brood year) escapement and R/S estimates were calculated by dividing total return by its respective parent year escapement.

Red Lake (Ayakulik River)

The Red Lake sockeye salmon run reconstruction was accomplished by combining the Ayakulik River weir sockeye salmon escapement and 90% of the Inner and Outer Ayakulik Sections sockeye salmon harvest by age class for the period from 21 June through 1 August. Estimates by age class were assigned to the parent year (brood year) escapement and R/S estimates were calculated by dividing total return by its respective parent year escapement.

Frazer Lake (Dog Salmon Creek)

The majority of sockeye salmon bound for Frazer Lake are assumed to be harvested in the Alitak Bay District (ABD). Run timing of the Frazer Lake (Dog Salmon Creek) system coincides with the early sockeye salmon run to Upper Station. Since there was no commercial fishing activity in the Moser and Olga Bay Sections, the Frazer Lake catch was estimated from the Cape Alitak Section only. An age composition comparison was used to apportion the sockeye salmon in the Cape Alitak catch between Frazer Lake and Upper Station late run (Witteveen et al. *In press*). This catch estimate by age class was added to escapement counted at the Dog Salmon Creek weir. Total run estimates by age class were assigned to the parent year (brood year) escapement and R/S estimates were calculated by dividing total return by its respective parent year escapement.

Olga Lakes (Upper Station)

The Olga Lakes system (Upper Station) is known to have an early and late-run sockeye salmon component (based on run timing) and each component was estimated separately.

Early Run. Upper Station early-run sockeye salmon are generally caught along with the Frazer Lake run in the ABD during June and early July. There were no fishery openings in the ABD during the early run and therefore, the run reconstruction was determined as escapement only. Total run estimates by age class were assigned to the parent year (brood year) escapement and R/S estimates were calculated by dividing total return by its respective parent year escapement.

Late Run. Similar to the Frazer Lake run, very little fishing activity took place during the Upper Station late run migration. Sockeye salmon caught in the Cape Alitak Section were apportioned to Frazer Lake and Upper Station late run using age composition comparison. The total Upper Station late-run estimate was determined by summing escapement counts post 15 July from the Upper Station weir and assigned catch numbers by age class. Estimates by age class were assigned to the parent year (brood year) escapement and R/S estimates were calculated by dividing total return by its respective parent year escapement.

RESULTS

Adult Sockeye Salmon Escapement Abundance, Age, Sex, and Size Data

A total of 1,652,178 sockeye salmon were estimated as escapement through 11 weirs in the KMA during 2002 (Tables 4 and 5).

A total of 11,400 of the escapement scale samples were ageable, representing a combined escapement of 1,414,231 sockeye salmon or about 86% of the total escapement counted through weirs (Table 6). It was not possible to represent 100% of the runs because escapement occurred prior to and after sampling events. In its entirety, the escapement was predominantly 5 and 6-year-old fish classified as age 2.2 (37%) and 2.3 (32%). While primary age classes varied by system, age 2.3 sockeye salmon were predominant in Frazer Lake and age 2.2 fish were dominant in Ayakulik River and Akalura Lake escapements. Karluk Lake early and late runs were comprised mainly of age 2.3 and 2.2 fish; however, there was a larger age 2.2 component in the late run (51%). The highest percentage (41%) of Upper Station early-run was classified as age 2.3, while the Upper Station late run was predominantly age 2.2 (82%). A substantial component (47%) of Little River Lake sockeye salmon were classified as age 1.2 while 49% of Saltery Lake sockeye salmon escapements were designated as age 1.3 fish. Approximately 35% of the Afognak Lake sockeye salmon escapement was classified as age 1.3 followed by 30% age 3.2 fish. Malina Lake had a predominant age class of 1.2 (52%). KMA sockeye salmon escapement length measurements ranged from 275-686 mm and the sex percentages ranged from 60% female and 40% male at Olga Lake (late run) to 43% female and 57% male at Pauls Lake. Individual age, length, and sex composition summaries by escapement area may be found in Tables 7 through 42.

Commercial Salmon Catch Abundance and Age Data

The 2002 commercial salmon harvest in the KMA totaled 21,318,146 fish consisting of 19,263 chinook, 1,824,848 sockeye, 496,073 coho, 18,327,818 pink, and 650,144 chum salmon. (Table 43). The 2002 overall salmon harvest was greater than or exceeded than the recent five-year average of 19.4 million fish while the sockeye salmon harvest was lower than the recent five-year average of 3.3 million. The majority of the commercial sockeye salmon catch occurred within the NW Kodiak District (58%) with the next largest contribution occurring from SW Kodiak District (12%; Table 44). The overall average weight of sockeye salmon commercially harvested in the KMA during 2002 was 5.7 lbs.

A total of 16,382 harvested sockeye salmon were sampled from which 15,298 salmon scales were classified by age determination from a variety of catch areas throughout the KMA. These samples were utilized to represent a combined harvest of approximately 1.3 million fish, or about 73% of the commercial sockeye harvest (Table 45). The overall catch was predominantly age 2.2 (36%), 1.2 (20%), and 1.3 (18%) fish; however, primary age classes varied by section and district. The Foul Bay, Malina Bay, and Waterfall Bay terminal harvest area catches were predominantly age 1.2 fish. Most of

the commercial catch sample areas were dominated by age 2.2 fish including the Southwest Afognak, Uganik, Viekoda, Uyak, Inner Karluk, Outer Karluk, Sturgeon, Inner Ayakulik, Outer Ayakulik, and Humpy-Deadman Sections. The Spiridon Bay Section (SLTHA) had a similar amount of age 1.2 (36.1%) and age 1.3 (35.8%) sockeye salmon, while a majority of the Alitak Bay test fishery samples were age 2.3 fish. Individual age composition summaries by catch area may be found in Tables 46 through 65.

Sockeye Salmon Run Reconstruction Estimates

Spiridon Lake

A total of 199,539 sockeye salmon were commercially harvested in the SLTHA during 2002 (Table 66). An average of 41% (ranging from 33 to 45%) of Spiridon Lake bound sockeye salmon were harvested in the SLTHA from 1994-1997 (Nelson 1999). Based on this proportion, an estimated total of 491,629 Spiridon Lake sockeye salmon were harvested in the SW Afognak Section and NW Kodiak District (including the SLTHA) combined. About 36.1% (177,478 fish) of the total estimated Spiridon Lake run were age 1.2 and 35.8% (176,003 fish) were classified as age 1.3. The 2002 estimated Spiridon Lake run was above the estimated 5-year (1997-2001) average run of 234,681 sockeye salmon (Figure 8).

Karluk Lake

Early Run. The 2002 Karluk Lake early sockeye salmon run estimate of 623,880 was predominantly composed of age 2.2 fish (38%; Table 67). This run was slightly lower than the 2001 estimated run (642,463), but higher than the recent 10-year average (1992-2001) estimated run of 529,419 fish (Figure 9). The 1984-1993 Karluk early-run sockeye salmon escapements have produced an estimated average return of 435,578 fish (range: 241,483-682,826) with an average R/S estimate of 1.6 (Table 68).

Late Run. The Karluk Lake late sockeye salmon run was estimated to be 866,019 fish in 2002 (Table 69). Age 2.2 fish were predominant (57%) followed by age 2.3 fish (17%). The estimated 2002 run was slightly below the 2001 run but was above the recent 10-year average estimated run of 741,947 fish (Figure 10). The 1985-1994 Karluk Lake late-run sockeye salmon escapements have produced an estimated average return of 895,986 fish (range: 332,669-1,838,274) with an average R/S estimate of 1.7 (Table 70).

Red Lake (Ayakulik River)

The 2002 estimated Red Lake sockeye salmon run totaled 235,797 fish, with age 2.3 (61%) and 2.2 (15%) fish accounting for the majority of the run (Table 71). The 2002 estimated Ayakulik run was much lower than the 2001 estimated run (586,414), well below the recent 10-year average (1992-2001) estimated run of 783,259 fish (Figure 11) and the lowest run since 1983. The 1985-1994

Ayakulik sockeye salmon escapements have produced an estimated average return of 1,028,605 fish (range: 325,535-1,786,779; Table 72) with an average R/S of 2.9.

Frazer Lake (Dog Salmon Creek)

The Frazer Lake sockeye salmon run estimate of 110,226 was predominantly composed of age 2.3 fish (46%; Table 73). This run was much lower than the 2001 estimated run (403,391), and well below the recent 10-year average (1992-2001) estimated run of 565,147 fish (Figure 12). Frazer Lake sockeye salmon escapements from 1986-1995 have produced an estimated average return of 751,923 fish (range: 364,652-2,227,031) with an average R/S estimate of 4.8 (Table 74).

Olga Lakes (Upper Station)

Early Run. The 2002 Upper Station early sockeye salmon run estimate was 36,709, with age 2.3 fish accounting for 42% of the run while age 2.2 accounted for 32% of the run (Table 75). This estimated run was smaller than the 2001 run (158,648) and the recent 10-year average (1992-2001) estimated run of 121,856 fish (Figure 13). The 1986-1995 Upper Station early sockeye salmon escapements have produced an estimated average return of 123,299 fish (range: 47,038-294,021; Table 76) with an average R/S of 2.5.

Late Run. The Upper Station sockeye salmon late run estimate of 159,621 fish was predominantly composed of age 2.2 fish (81%; Table 77). The 2002 estimated run was slightly larger than the 2001 estimated run (135,015) but smaller than the recent 10-year average (1992-2001) estimated run of 470,319 fish (Figure 14). Upper Station late-run salmon escapements from 1986-1995 have produced an estimated average return of 577,420 fish (range: 271,836-1,084,640) with an average R/S estimate of 2.5 (Table 78).

LITERATURE CITED

- ADF&G (Alaska Department of Fish and Game). 1993. An atlas to the catalog of waters important for spawning, rearing, or migration of anadromous fishes; Southwestern Region, Resource Management Region III. Department of Fish and Game, Division of Habitat, Anchorage. Revised Feb. 11, 1993.
- ADF&G (Alaska Department of Fish and Game). 2002a. 2001-2004 Regulations of the Alaska Board of Fisheries for Cook Inlet, Kodiak, and Chignik Area Commercial Salmon and miscellaneous Finfish Fishing in Alaska. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Juneau.
- ADF&G (Alaska Department of Fish and Game). 2002b. Salmon Research Operational Plans for the Kodiak area, 2002. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K02-36, Kodiak.
- Barrett, B.M. and P.A. Nelson. 1994. An estimate of Spiridon Lake sockeye salmon commercially harvested within the Northwest Kodiak and Southwest Kodiak Districts, 1994. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K94-43, Kodiak.
- Barrett, B.M. and P.A. Nelson. 1995. Estimation of Karluk Lake early and late run sockeye returns based on scale age data, 1985-1994. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report No. 4K95-44, Kodiak.
- Blackburn, J. 1993. Documentation for the application redage. Alaska Department of Fish and Game, Division of Commercial Fisheries, (Region IV unpublished report), Kodiak.
- Brodie, J.R. 2000. Kodiak Management Area salmon escapement cumulative counts for fish-weirs, 1990-1999. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K00-51, Kodiak.
- Clutter, R. and L. Whitesel. 1956. Collection and Interpretation of sockeye salmon scales. International Pacific Salmon Fisheries Commission, Bulletin 9, New Westminster, British Columbia, Canada.
- INPFC (International North Pacific Fisheries Commission). 1963. Annual Report 1961, Vancouver, British Columbia.
- Koo, T.S.Y. 1962. Age designation in salmon. Pages 37-48 in T.S.Y. Koo, editor. Studies of Alaska red salmon. University of Washington Publications in Fisheries, New Series, Volume I, Seattle.

LITERATURE CITED (Cont.)

- Mosher, K. H. 1968. Photographic atlas of sockeye salmon scales. Bureau of the U.S. Fish and Wildlife Service. Fishery Bulletin 67(2):243-280.
- Nelson, P.A. 1999. An estimate of Spiridon Lake sockeye salmon commercially harvested within the Southwest Afognak Section and Northwest Kodiak District, 1997. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K99-25, Kodiak.
- Nelson, P.A. and C.O. Swanton. 1996. An Estimate of Spiridon Lake sockeye salmon Commercially Harvested Within the Northwest Kodiak and Southwest Kodiak Districts, 1995. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K96-32, Kodiak.
- Nelson, P.A. and C.O. Swanton. 1997. An Estimate of Spiridon Lake sockeye salmon commercially harvested within the Southwest Afognak Section and Northwest Kodiak District, 1996. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K97-44, Kodiak.
- Nelson, P.A. and D.S. Lloyd. 2001. Escapement goals for pacific salmon in the Kodiak, Chignik, and Alaska Peninsula/Aleutian Islands areas of Alaska. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K01-66, Kodiak.
- Sagalkin N. 1999. Frazer Lake fish pass sockeye salmon smolt and adult research, 1997 and 1998. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K99-59, Kodiak.
- Swanton, C.O. 1992. Stock Interrelationships of sockeye salmon runs, Alitak Bay District, Kodiak Island, Alaska. Masters Thesis, University of Washington, Seattle.
- Thompson, S.K. 1987. Sample size for estimating multinomial proportions. *The American Statistician* 41(1): 42-46.
- Wadle, J. A. 2001. Kodiak Management Area commercial salmon annual management report, 2000. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report No. 4K01-40, Kodiak.
- Witteveen, M. W., N. S. Sagalkin, M. B. Foster, K. A. Bouwens, S. G. Honnold, S. T. Schrof, and R. T. Baer. *In press*. Westward Region Salmon Run Reconstruction for the 2002 season and Forecasting for the 2003 season. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report, Kodiak.

Table 1. Sampling weeks and corresponding calendar dates, 2002.

Week	Calendar Dates	Week	Calendar Dates
1	1-Jan - 3-Jan	28	5-Jul - 11-Jul
2	4-Jan - 10-Jan	29	12-Jul - 18-Jul
3	11-Jan - 17-Jan	30	19-Jul - 25-Jul
4	18-Jan - 24-Jan	31	26-Jul - 1-Aug
5	25-Jan - 31-Jan	32	2-Aug - 8-Aug
6	1-Feb - 7-Feb	33	9-Aug - 15-Aug
7	8-Feb - 14-Feb	34	16-Aug - 22-Aug
8	15-Feb - 21-Feb	35	23-Aug - 29-Aug
9	22-Feb - 28-Feb	36	30-Aug - 5-Sep
10	1-Mar - 7-Mar	37	6-Sep - 12-Sep
11	8-Mar - 14-Mar	38	13-Sep - 19-Sep
12	15-Mar - 21-Mar	39	20-Sep - 26-Sep
13	22-Mar - 28-Mar	40	27-Sep - 3-Oct
14	29-Mar - 4-Apr	41	4-Oct - 10-Oct
15	5-Apr - 11-Apr	42	11-Oct - 17-Oct
16	12-Apr - 18-Apr	43	18-Oct - 24-Oct
17	19-Apr - 25-Apr	44	25-Oct - 31-Oct
18	26-Apr - 2-May	45	1-Nov - 7-Nov
19	3-May - 9-May	46	8-Nov - 14-Nov
20	10-May - 16-May	47	15-Nov - 21-Nov
21	17-May - 23-May	48	22-Nov - 28-Nov
22	24-May - 30-May	49	29-Nov - 5-Dec
23	31-May - 6-Jun	50	6-Dec - 12-Dec
24	7-Jun - 13-Jun	51	13-Dec - 19-Dec
25	14-Jun - 20-Jun	52	20-Dec - 26-Dec
26	21-Jun - 27-Jun	53	27-Dec - 31-Dec
27	28-Jun - 4-Jul		

Table 2. Sockeye salmon escapement sampling schedule for the Kodiak Management Area, 2002.

District	Sample Location	Statistical Area	Sampling Frequency	Date Starting	Date Ending	Sample Size
<i>Afognak District</i>						
	Malina Lake	251-10-105	intermittently	1-Jun	1-Jul	600
	Foul Bay (FBTHA) ^a	251-41	intermittently	9-Jun	1-Jul	600
	Waterfall Bay (WBTHA) ^a	251-84	intermittently	9-Jun	1-Jul	600
	Pauls Lake	251-85	intermittently	15-Jun	15-Jul	600
	Afognak Lake (Litnik) early middle late	252-34-342	once once once	1-Jun 20-Jun 14-Jul	15-Jun 5-Jul 20-Jul	480 480 480
<i>Northwest Kodiak District</i>						
	Little River ^b	253-11-115	intermittently	1-Jun	15-Jul	run dependent
	Karluk Lake	255-10-101	3 times per week	30-May	30-Sep	240 (total per week) ^c
	Spiridon Lake (SLTHA) ^a	254-50-403	weekly	1-Jul	15-Aug	240
<i>Southwest Kodiak District</i>						
	Ayakulik (Red Lake)	256-15-201	3 times per week	30-May	15-Sep	240 (total per week) ^c
<i>Alitak Bay District</i>						
	Olga Lakes (Upper Station)	257-30-304	3 times per week	1-Jun	30-Sep	240 (total per week) ^c
	Akalura (late run)	257-31-302	intermittently	1-Aug	31-Aug	run dependent
	Frazer Lake fish pass	257-40-403	3 times per week	15-Jun	15-Aug	240 (total per week) ^c
<i>Eastside Kodiak District</i>						
	Saltery Lake	259-41-415	intermittently	1-Jul	1-Aug	600

^a Catch sampling at the terminal harvest area (THA) was performed to represent the run.

^b Little River weir was operated by U. S. Fish and Wildlife personnel.

^c Sampling took place 3 times per sampling week on alternating days (e.g., Monday, Wednesday, and Friday).

Table 3. Sockeye salmon catch sampling schedule for the Kodiak Management Area, 2002.

District Geographic Area	Statistical Areas	Primary Sampling Site ^a	Crew Leader	Frequency	Sample Dates	Size
Afognak District						
NW Afognak Section	251-30 - 251-50	Port of Kodiak	Thomas	weekly	7/6 - 7/25	400
Waterfall Bay	251-84	Waterfall Bay	Swanson	intermittently	6/9 - 7/1	400
Foul Bay	251-41	Foul Bay	Lawson	intermittently	6/9 - 7/1	400
SW Afognak Section	251-10 - 251-20	Port of Kodiak	Thomas	weekly	6/14 - 8/31	400
Malina Bay	251-20	Malina Bay	Spalinger	intermittently	6/9 - 7/1	400
Kitoi Bay	252-32	Kitoi Bay	Ghormley	intermittently	6/9 - 7/1	400
NW Kodiak District						
Uganik Bay	253-11 - 253-35	Port of Kodiak	Thomas	weekly	6/9 - 9/5	400
Uyak Bay	254-10 - 254-40	Alitak (Lazy Bay)	Thomas	weekly	6/9 - 9/5	400
Telrod Cove/Spiridon ^b	254-50	Telrod Cove	Lawson	weekly	7/19 - 9/12	240
SW Kodiak District						
Inner/Outer Karluk Section	255-10 - 255-20	Port of Kodiak	Thomas	weekly	6/9 - 8/1	400
Sturgeon Section	256-40	Port of Kodiak	Thomas	weekly	6/9 - 8/1	400
Halibut/Gurney Bay	256-25 - 256-30	Port of Kodiak	Thomas	weekly	6/23 - 8/1	400
Inner/Outer Ayakulik Section	256-10 - 256-20	Port of Kodiak	Thomas	weekly	6/9 - 8/1	400
Alitak Bay District						
Cape Alitak/Humpy Deadman	257-10,20 257-50-70	Alitak (Lazy Bay)	Costello	weekly	6/9 - 8/31	600
Moser/Olga Bay Section	257-40 - 257-41	Port of Kodiak	Thomas	weekly	6/9 - 8/31	600

^a Alitak is the secondary sampling site for SW Kodiak samples.

^b Telrod Cove will use a weekly sample size of 240 fish (consistent with escapement sampling).

Table 4. Daily and cumulative sockeye salmon escapement counted through weirs by system (four major systems), Kodiak Management Area, 2002.

Date	System (weir)									
	Karluk Lake ^a		Red Lake (Ayakulik) ^b		Olga Lakes (Upper Station) ^c		Dog Salmon Creek ^d		Frazer Lake ^e	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
05/20/02			49	49						
05/21/02			19	68						
05/22/02			153	221						
05/23/02			91	312						
05/24/02	4	4	126	438						
05/25/02	5	9	13	451						
05/26/02	6	15	809	1,260						
05/27/02	5	20	27	1,287	412	412				
05/28/02	152	172	120	1,407	272	684				
05/29/02	23	195	2,242	3,649	138	822				
05/30/02	5	200	12,745	16,394	969	1,791	0	0		
05/31/02	24	224	3,884	20,278	1,106	2,897	0	0		
06/01/02	167	391	34	20,312	1,136	4,033	0	0		
06/02/02	529	920	12,042	32,354	664	4,697	0	0		
06/03/02	4,787	5,707	171	32,525	1,178	5,875	0	0		
06/04/02	38,154	43,861	13,846	46,371	452	6,327	0	0		
06/05/02	15,370	59,231	6,690	53,061	1,295	7,622	5,060	5,060		
06/06/02	22,997	82,228	7,917	60,978	610	8,232	1,798	6,858		
06/07/02	22,879	105,107	11,468	72,446	1,807	10,039	506	7,364		
06/08/02	12,754	117,861	13,053	85,499	427	10,466	655	8,019		
06/09/02	11,358	129,219	5,830	91,329	1,923	12,389	4,500	12,519		
06/10/02	19,946	149,165	1,140	92,469	1,552	13,941	1,500	14,019		
06/11/02	24,576	173,741	2,885	95,354	1,652	15,593	3,560	17,579		
06/12/02	29,023	202,764	20,478	115,832	1,503	17,096	4,521	22,100		
06/13/02	38,298	241,062	3,246	119,078	1,365	18,461	4,048	26,148	43	43
06/14/02	25,769	266,831	3,909	122,987	673	19,134	1,226	27,374	135	178
06/15/02	35,104	301,935	14,311	137,298	2,279	21,413	2,238	29,612	1,001	1,179

-Continued-

Table 4. (page 2 of 5)

Date	System (weir)									
	Karluk Lake ^a		Red Lake (Ayakulik) ^b		Olga Lakes (Upper Station) ^c		Dog Salmon Creek ^d		Frazer Lake ^e	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
06/16/02	23,994	325,929	6,519	143,817	1,207	22,620	2,889	32,501	2,093	3,272
06/17/02	19,849	345,778	4,145	147,962	1,341	23,961	2,020	34,521	9,829	13,101
06/18/02	11,380	357,158	7,059	155,021	964	24,925	1,821	36,342	1,445	14,546
06/19/02	8,576	365,734	1,160	156,181	1,029	25,954	1,475	37,817	1,572	16,118
06/20/02	13,380	379,114	767	156,948	950	26,904	1,921	39,738	4,411	20,529
06/21/02	7,048	386,162	3,386	160,334	820	27,724	3,052	42,790	1,368	21,897
06/22/02	8,076	394,238	5,052	165,386	657	28,381	2,574	45,364	1,484	23,381
06/23/02	5,792	400,030	3,260	168,646	568	28,949	774	46,138	3,210	26,591
06/24/02	5,041	405,071	1,411	170,057	669	29,618	1,602	47,740	3,195	29,786
06/25/02	2,061	407,132	2,098	172,155	1,062	30,680	2,249	49,989	2,387	32,173
06/26/02	1,206	408,338	2,178	174,333	601	31,281	2,396	52,385	518	32,691
06/27/02	1,357	409,695	835	175,168	151	31,432	1,243	53,628	3,193	35,884
06/28/02	12,176	421,871	908	176,076	143	31,575	2,654	56,282	3,798	39,682
06/29/02	1,235	423,106	725	176,801	157	31,732	509	56,791	758	40,440
06/30/02	5,114	428,220	2,369	179,170	1,082	32,814	1,762	58,553	2,022	42,462
07/01/02	6,768	434,988	97	179,267	345	33,159	2,984	61,537	864	43,326
07/02/02	1,271	436,259	3,717	182,984	349	33,508	2,435	63,972	730	44,056
07/03/02	266	436,525	2,138	185,122	229	33,737	2,243	66,215	4,794	48,850
07/04/02	2,133	438,658	376	185,498	148	33,885	1,791	68,006	3,738	52,588
07/05/02	1,532	440,190	443	185,941	363	34,248	851	68,857	2,080	54,668
07/06/02	2,260	442,450	239	186,180	53	34,301	629	69,486	1,049	55,717
07/07/02	1,983	444,433	352	186,532	502	34,803	3,269	72,755	612	56,329
07/08/02	2,751	447,184	4,066	190,598	263	35,066	2,113	74,868	844	57,173
07/09/02	1,540	448,724	130	190,728	98	35,164	636	75,504	825	57,998
07/10/02	2,127	450,851	42	190,770	347	35,511	2,927	78,431	375	58,373
07/11/02	489	451,340	324	191,094	254	35,765	895	79,326	284	58,657
07/12/02	967	452,307	2,694	193,788	170	35,935	3,460	82,786	680	59,337
07/13/02	39	452,346	2	193,790	259	36,194	16	82,802	74	59,411
07/14/02	1,035	453,381	118	193,908	217	36,411	1,308	84,110	835	60,246
07/15/02	114	453,495	279	194,187	391	36,802	665	84,775	1,635	61,881

-Continued-

Table 4. (page 3 of 5)

Date	System (weir)									
	Karluk Lake ^a		Red Lake (Ayakulik) ^b		Olga Lakes (Upper Station) ^c		Dog Salmon Creek ^d		Frazer Lake ^e	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
07/16/02	527	454,022	148	194,335	343	37,145	781	85,556	658	62,539
07/17/02	1,117	455,139	1,137	195,472	302	37,447	1,786	87,342	836	63,375
07/18/02	477	455,616	1,465	196,937	416	37,863	1,683	89,025	2,135	65,510
07/19/02	575	456,191	1,627	198,564	657	38,520	377	89,402	250	65,760
07/20/02	417	456,608	3,037	201,601	178	38,698	826	90,228	144	65,904
07/21/02	234	456,842	2,902	204,503	715	39,413	713	90,941	427	66,331
07/22/02	303	457,145	350	204,853	490	39,903	1,001	91,942	1,209	67,540
07/23/02	136	457,281	296	205,149	312	40,215	385	92,327	3,455	70,995
07/24/02	938	458,219	13	205,162	971	41,186	853	93,180	3,128	74,123
07/25/02	378	458,597	177	205,339	743	41,929	269	93,449	239	74,362
07/26/02	375	458,972	9	205,348	1,395	43,324	151	93,600	286	74,648
07/27/02	206	459,178	526	205,874	798	44,122	1,487	95,087	1,523	76,171
07/28/02	361	459,539	17	205,891	803	44,925	977	96,064	2,059	78,230
07/29/02	609	460,148	11	205,902	2,092	47,017	1,112	97,176	785	79,015
07/30/02	8,087	468,235	24	205,926	1,162	48,179	700	97,876	2,628	81,643
07/31/02	3,809	472,044	112	206,038	169	48,348	669	98,545	421	82,064
08/01/02	1,857	473,901	5,345	211,383	3,027	51,375	613	99,158	10	82,074
08/02/02	1,943	475,844	483	211,866	1,982	53,357	449	99,607	267	82,341
08/03/02	650	476,494	460	212,326	3,242	56,599	893	100,500	291	82,632
08/04/02	141	476,635	703	213,029	3,993	60,592	701	101,201	246	82,878
08/05/02	1,886	478,521	1,861	214,890	2,635	63,227	766	101,967	260	83,138
08/06/02	389	478,910	1,722	216,612	4,831	68,058	348	102,315	367	83,505
08/07/02	189	479,099	840	217,452	2,760	70,818	621	102,936	176	83,681
08/08/02	804	479,903	547	217,999	7,003	77,821	602	103,538	260	83,941
08/09/02	473	480,376	497	218,496	5,873	83,694	396	103,934	420	84,361
08/10/02	4,955	485,331	618	219,114	6,130	89,824	302	104,236	73	84,434
08/11/02	2,102	487,433	159	219,273	4,359	94,183	176	104,412	186	84,620
08/12/02	779	488,212	275	219,548	2,979	97,162	170	104,582	224	84,844
08/13/02	407	488,619	319	219,867	4,264	101,426	123	104,705	287	85,131
08/14/02	1,228	489,847	1,328	221,195	3,197	104,623	226	104,931	126	85,257

-Continued-

Table 4. (page 4 of 5)

Date	System (weir)									
	Karluk Lake ^a		Red Lake (Ayakulik) ^b		Olga Lakes (Upper Station) ^c		Dog Salmon Creek ^d		Frazer Lake ^e	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
08/15/02	5,903	495,750	440	221,635	7,801	112,424	126	105,057	60	85,317
08/16/02	5,766	501,516	651	222,286	3,095	115,519	73	105,130		
08/17/02	559	502,075	185	222,471	5,950	121,469	85	105,215		
08/18/02	252	502,327	755	223,226	6,289	127,758	152	105,367		
08/19/02	81	502,408	1,472	224,698	4,404	132,162	120	105,487		
08/20/02	469	502,877	308	225,006	5,302	137,464	63	105,550		
08/21/02	275	503,152	1,215	226,221	3,311	140,775	29	105,579		
08/22/02	222	503,374	680	226,901	1,894	142,669	85	105,664		
08/23/02	77	503,451	120	227,021	1,910	144,579	61	105,725		
08/24/02	152	503,603	187	227,208	4,300	148,879	45	105,770		
08/25/02	657	504,260	289	227,497	2,345	151,224	54	105,824		
08/26/02	183	504,443	230	227,727	2,959	154,183	14	105,838		
08/27/02	248	504,691	183	227,910	2,749	156,932	150	105,988		
08/28/02	556	505,247	409	228,319	2,409	159,341				
08/29/02	993	506,240	127	228,446	3,615	162,956				
08/30/02	34,135	540,375	77	228,523	3,676	166,632				
08/31/02	13,915	554,290	125	228,648	1,943	168,575				
09/01/02	4,866	559,156	101	228,749	1,840	170,415				
09/02/02	5,177	564,333	99	228,848	3,634	174,049				
09/03/02	2,118	566,451	144	228,992	1,127	175,176				
09/04/02	20,735	587,186	111	229,103	1,163	176,339				
09/05/02	58,633	645,819	24	229,127	2,399	178,738				
09/06/02	24,096	669,915	15	229,142	83	178,821				
09/07/02	16,834	686,749	150	229,292	0	178,821				
09/08/02	10,571	697,320			1,302	180,123				
09/09/02	4,614	701,934			196	180,319				
09/10/02	960	702,894			2,051	182,370				
09/11/02	364	703,258			190	182,560				

-Continued-

Table 4. (page 5 of 5)

Date	System (weir)									
	Karluk Lake ^a		Red Lake (Ayakulik) ^b		Olga Lakes (Upper Station) ^c		Dog Salmon Creek ^d		Frazer Lake ^e	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
09/12/02	240	703,498			594	183,154				
09/13/02	273	703,771			1,083	184,237				
09/14/02	96	703,867			401	184,638				
09/15/02	91	703,958			347	184,985				
09/16/02	181	704,139			561	185,546				
09/17/02	20,633	724,772			372	185,918				
09/18/02	30,242	755,014			126	186,044				
09/19/02	18,655	773,669			687	186,731				
09/20/02	606	774,275			420	187,151				
09/21/02	302	774,577								
09/22/02	1,803	776,380								
09/23/02	63,825	840,205								
09/24/02	7,000	847,205								
09/25/02	2,767	849,972								
09/26/02	2,586	852,558								
09/27/02	1,018	853,576								
09/28/02	12,000	865,576								
Totals	865,576		229,292		187,151		105,988		85,317	

^a Karluk Lake weir was installed on 5/23 and removed on 9/27 (post-weir estimates included in counts).

^b Ayakulik weir was installed on 5/20 and removed on 9/7.

^c Upper Station weir was installed on 5/26 and removed on 9/20.

^d Dog Salmon weir was installed on 5/30 and removed on 8/27.

^e Frazer Lake fish pass weir was installed on 6/13 and removed on 8/15. Fish are initially counted through Dog Salmon weir.

Table 5. Daily and cumulative sockeye salmon escapement counted through weirs by system (seven minor systems), Kodiak Management Area, 2002.

Date	System (weir)													
	Malina ^a		Pauls ^b		Litnik ^c		Buskin ^d		Saltery ^e		Akalura ^f		Little River ^g	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
05/20/02	7	7												
05/21/02	0	7												
05/22/02	1	8												
05/23/02	0	8					36	36						
05/24/02	1	9					8	44						
05/25/02	506	515					3	47						
05/26/02	31	546					99	146						
05/27/02	2	548					122	268						
05/28/02	0	548			171	171	12	280						
05/29/02	142	690			62	233	394	674						
05/30/02	2,637	3,327			2	235	984	1,658						
05/31/02	339	3,666			112	347	80	1,738					340	340
06/01/02	161	3,827	0	0	56	403	310	2,048					805	1,145
06/02/02	169	3,996	0	0	368	771	3	2,051					1,099	2,244
06/03/02	932	4,928	0	0	96	867	140	2,191					654	2,898
06/04/02	2,311	7,239	0	0	110	977	112	2,303					410	3,308
06/05/02	1,558	8,797	0	0	3	980	210	2,513					376	3,684
06/06/02	1,597	10,394	0	0	198	1,178	1,175	3,688					27	1,470
06/07/02	907	11,301	0	0	1	1,179	631	4,319					0	2,128
06/08/02	1,528	12,829	0	0	1,351	2,530	1,551	5,870					0	2,773
06/09/02	3,369	16,198	0	0	97	2,627	714	6,584					0	10,055
06/10/02	937	17,135	0	0	53	2,680	731	7,315					0	11,442
06/11/02	3,736	20,871	0	0	0	2,680	175	7,490					8	2,200
06/12/02	257	21,128	0	0	195	2,875	147	7,637					5	13,642
06/13/02	509	21,637	0	0	169	3,044	525	8,162					20	1,240
06/14/02	5,566	27,203	0	0	713	3,757	133	8,295					0	18,774
06/15/02	1,169	28,372	0	0	1,434	5,191	544	8,839					21	1,880
06/16/02	1,202	29,574	942	942	946	6,137	102	8,941					24	21,140
													105	25,124

-Continued-

Table 5. (page 2 of 5)

Date	System (weir)													
	Malina ^a		Pauls ^b		Litnik ^c		Buskin ^d		Saltery ^e		Akalura ^f		Little River ^g	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
06/17/02	537	30,111	3,429	4,371	512	6,649	401	9,342			12	117	1,736	26,860
06/18/02	386	30,497	3,227	7,598	1,466	8,115	833	10,175			0	117	1,467	28,327
06/19/02	564	31,061	2,232	9,830	122	8,237	284	10,459			0	117	1,144	29,471
06/20/02	143	31,204	663	10,493	29	8,266	380	10,839			3	120	460	29,931
06/21/02	45	31,249	25	10,518	573	8,839	151	10,990			0	120	191	30,122
06/22/02	204	31,453	0	10,518	672	9,511	402	11,392			0	120	281	30,403
06/23/02	31	31,484	0	10,518	2	9,513	64	11,456			8	128	128	30,531
06/24/02	13	31,497	2,312	12,830	1,406	10,919	574	12,030			3	131	54	30,585
06/25/02	483	31,980	2,096	14,926	368	11,287	451	12,481			43	174	1,001	31,586
06/26/02	75	32,055	0	14,926	1,278	12,565	351	12,832			6	180	89	31,675
06/27/02	159	32,214	0	14,926	114	12,679	84	12,916			0	180	317	31,992
06/28/02			4,162	19,088	345	13,024	32	12,948			3	183	158	32,150
06/29/02			6,151	25,239	60	13,084	309	13,257			40	223	93	32,243
06/30/02			185	25,424	367	13,451	22	13,279	501	501	17	240	228	32,471
07/01/02			851	26,275	92	13,543	239	13,518	2,746	3,247	209	449	145	32,616
07/02/02			257	26,532	241	13,784	98	13,616	2,579	5,826	7	456	731	33,347
07/03/02			182	26,714	275	14,059	124	13,740	6,074	11,900	1	457	259	33,606
07/04/02			128	26,842	126	14,185	322	14,062	2,121	14,021	1	458	88	33,694
07/05/02			4	26,846	85	14,270	171	14,233	937	14,958	0	458	94	33,788
07/06/02			0	26,846	49	14,319	72	14,305	358	15,316	1	459	26	33,814
07/07/02			14	26,860	0	14,319	78	14,383	152	15,468	21	480	69	33,883
07/08/02			0	26,860	46	14,365	19	14,402	347	15,815	2	482	23	33,906
07/09/02			170	27,030	20	14,385	19	14,421	33	15,848	0	482	12	33,918
07/10/02			13	27,043	80	14,465	705	15,126	69	15,917	0	482	20	33,938
07/11/02			7	27,050	13	14,478	42	15,168	351	16,268	0	482	16	33,954
07/12/02			9	27,059	40	14,518	40	15,208	114	16,382	185	667	12	33,966
07/13/02			0	27,059	11	14,529	121	15,329	130	16,512	0	667	17	33,983
07/14/02			0	27,059	43	14,572	9	15,338	121	16,633	0	667	20	34,003
07/15/02			335	27,394	702	15,274	380	15,718	320	16,953	0	667	61	34,064
07/16/02			510	27,904	34	15,308	9	15,727	471	17,424	0	667		

-Continued-

Table 5. (page 3 of 5)

Date	System (weir)													
	Malina ^a		Pauls ^b		Litnik ^c		Buskin ^d		Saltery ^e		Akalura ^f		Little River ^g	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
07/17/02			670	28,574	20	15,328	10	15,737	559	17,983	0	667		
07/18/02			40	28,614	21	15,349	4	15,741	469	18,452	0	667		
07/19/02			42	28,656	12	15,361	62	15,803	1,770	20,222	0	667		
07/20/02			72	28,728	47	15,408	18	15,821	664	20,886	0	667		
07/21/02			0	28,728	52	15,460	111	15,932	1,098	21,984	0	667		
07/22/02			192	28,920	749	16,209	80	16,012	546	22,530	0	667		
07/23/02			711	29,631	1,098	17,307	320	16,332	1,393	23,923	0	667		
07/24/02			777	30,408	9	17,316	45	16,377	630	24,553	0	667		
07/25/02			66	30,474	14	17,330	12	16,389	1,074	25,627	0	667		
07/26/02			153	30,627	20	17,350	6	16,395	1,504	27,131	0	667		
07/27/02			6	30,633	49	17,399	38	16,433	458	27,589	0	667		
07/28/02			0	30,633	21	17,420	4	16,437	918	28,507	0	667		
07/29/02			0	30,633	114	17,534	40	16,477	1,059	29,566	0	667		
07/30/02			100	30,733	80	17,614	3	16,480	592	30,158	0	667		
07/31/02			22	30,755	114	17,728	14	16,494	1,540	31,698	31	698		
08/01/02			61	30,816	62	17,790	9	16,503	1,073	32,771	0	698		
08/02/02			83	30,899	77	17,867	55	16,558	265	33,036	0	698		
08/03/02			47	30,946	84	17,951	22	16,580	303	33,339	0	698		
08/04/02			15	30,961	13	17,964	4	16,584	241	33,580	148	846		
08/05/02			260	31,221	55	18,019	4	16,588	117	33,697	30	876		
08/06/02			220	31,441	66	18,085	16	16,604	99	33,796	0	876		
08/07/02			142	31,583	65	18,150	21	16,625	292	34,088	25	901		
08/08/02			137	31,720	83	18,233	5	16,630	402	34,490	124	1,025		
08/09/02			86	31,806	89	18,322		16,630	76	34,566	14	1,039		
08/10/02			55	31,861	432	18,754		16,630	294	34,860	15	1,054		
08/11/02			50	31,911	104	18,858		16,630	120	34,980	4	1,058		
08/12/02					230	19,088		16,630	809	35,789	105	1,163		
08/13/02					30	19,118	9	16,639	33	35,822	25	1,188		
08/14/02					64	19,182	28	16,667	50	35,872	3	1,191		
08/15/02					32	19,214	26	16,693	12	35,884	16	1,207		

-Continued-

Table 5. (page 4 of 5)

Date	System (weir)													
	Malina ^a		Pauls ^b		Litnik ^c		Buskin ^d		Sality ^e		Akalura ^f		Little River ^g	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
08/16/02					22	19,236	3	16,696	26	35,910	0	1,207		
08/17/02					19	19,255	25	16,721	30	35,940	0	1,207		
08/18/02					14	19,269	13	16,734	7	35,947	1,044	2,251		
08/19/02					26	19,295	23	16,757	12	35,959	33	2,284		
08/20/02					142	19,437	21	16,778	19	35,978	1,736	4,020		
08/21/02					28	19,465	8	16,786	20	35,998	291	4,311		
08/22/02					31	19,496	6	16,792	1	35,999	928	5,239		
08/23/02					17	19,513	9	16,801	1	36,000	36	5,275		
08/24/02					3	19,516	13	16,814	15	36,015	37	5,312		
08/25/02					4	19,520	11	16,825	47	36,062	124	5,436		
08/26/02						2	16,827	6	36,068	80	5,516			
08/27/02						1	16,828	38	36,106	6	5,522			
08/28/02						3	16,831	10	36,116	14	5,536			
08/29/02						5	16,836	12	36,128	2	5,538			
08/30/02						11	16,847	43	36,171	42	5,580			
08/31/02						7	16,854	12	36,183	65	5,645			
09/01/02						2	16,856	12	36,195	13	5,658			
09/02/02						3	16,859	19	36,214	3	5,661			
09/03/02						0	16,859	4	36,218	4	5,665			
09/04/02						1	16,860	9	36,227	11	5,676			
09/05/02						0	16,860	2	36,229	84	5,760			
09/06/02						3	16,863	9	36,238	9	5,769			
09/07/02						10	16,873	19	36,257	43	5,812			
09/08/02						1	16,874	55	36,312	16	5,828			
09/09/02						2	16,876	12	36,324	107	5,935			
09/10/02						0	16,876	11	36,335	100	6,035			
09/11/02						0	16,876	1	36,336	1,600	7,635			
09/12/02						0	16,876	0	36,336					
09/13/02						1	16,877							
09/14/02						49	16,926							

-Continued-

Table 5. (page 5 of 5)

Date	System (weir)													
	Malina ^a		Pauls ^b		Litnik ^c		Buskin ^d		Saltery ^e		Akalura ^f		Little River ^g	
	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
09/15/02							12	16,938						
09/16/02							6	16,944						
09/17/02							0	16,944						
09/18/02							0	16,944						
09/19/02							0	16,944						
09/20/02							2	16,946						
09/21/02							5	16,951						
09/22/02							140	17,091						
09/23/02							55	17,146						
09/24/02							27	17,173						
09/25/02							0	17,173						
09/26/02							0	17,173						
09/27/02							1	17,174						
09/28/02							0	17,174						
09/29/02							0	17,174						
09/30/02							0	17,174						
Totals	32,214		31,911		19,520		17,174		36,336		7,635		34,064	

^a Malina Creek weir was installed on 5/19 and removed on 6/27.^b Pauls Lake weir was installed on 6/1 and removed on 8/11.^c Litnik weir was installed on 5/27 and removed on 8/24.^d Buskin Lake weir is installed and removed twice a season (5/23-8/8 and 8/13-9/30).^e Saltery Lake weir was installed on 7/1 and removed on 9/12 (pre-weir estimate included).^f Akalura Lake weir was installed on 6/1 and removed on 9/9 (post-weir estimate included).^g Little River Lake weir (operated by Kodiak Wildlife Refuge) was installed on 5/29 and removed on 7/15.

Table 6. Estimated age composition of sockeye salmon escapements by system, Kodiak Management Area, 2002.

District System	Sample Size	Ages															Total						
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	4.2						
<i>Afognak District</i>																							
Malina Lake	554	%		1.8		52.2		7.2		23.3		10.1		0.2		0.2		5.1	100.0				
		#		570		16,805		2,335		7,494		3,267		60		50		1,633	32,214				
Pauls Lake ^a	503	%		6.0		43.4		4.7		30.6		12.5		0.1		2.5		0.2	100.0				
		#		1,823		13,213		1,424		9,329		3,815		26		776		68	30,474				
Afognak Lake ^a (Litnik)	238	%		0.1		1.1		3.5		35.2		23.7		0.9		5.0		30.4	100.0				
		#		19		194		625		6,264		4,222		160		888		5,417	17,790				
<i>Northwest Kodiak District</i>																							
Karluk Lake	1,711	%		0.1		0.7		2.8		1.1		37.7		0.3		34.7		13.7	100.0				
early run		#		428		3,138		12,785		4,931		172,414		1,519		158,534		62,384	1,036	38,365	701	608	456,842
Karluk Lake	1,607	%		0.0		0.1		4.6		0.0		51.3		2.3		24.1		13.0	100.0				
late run		#		155		247		14,655		123		162,401		7,266		76,313		41,126	179	14,160	202	0	316,827
Little River Lake	232	%				46.6		1.8		0.6		0.5		0.6		2.2		38.1	100.0				
		#				15,879		598		202		156		202		748		12,979	278	3,022	34,064		
<i>Southwest Kodiak District</i>																							
Red Lake (Ayakulik)	1,567	%		1.3		0.3		12.5		1.1		0.3		4.7		12.2		0.1	64.3	0.2	0.5	2.6	100.0
		#		2,773		597		27,214		2,409		597		10,287		26,604		151	140,228	536	989	5,614	217,999

-Continued-

Table 6. (page 2 of 2)

District System	Sample Size	Ages																Total		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	4.2			
<i>Alitak Bay District</i>																				
Olga Lakes (Upper Station) early run	1,254	%			7.1		0.4	17.0		1.5	31.4	0.1	0.1	41.4	0.8		0.2	100.0		
		#			2,598		145	6,264		558	11,566	34	25	15,238	281		92	36,802		
Olga Lakes (Upper Station) late run	1,674	%	0.1	0.1	1.5		1.1	9.1		0.8	81.9	1.3		2.6	1.4	0.0	0.1	100.0		
		#	96	177	2,266		1,642	13,330		1,151	119,847	1,833		3,827	2,019	20	143	146,351		
Frazer Lake	1,453	%			1.1		0.9	23.4		7.7	12.6	0.2	1.5	46.8	0.1	0.8	5.0	100.0		
		#			928		789	19,932		6,546	10,773	186	1,247	39,955	81	656	4,225	85,317		
Akalura Lake	61	%					0.7			53.6				27.4	18.3			100.0		
		#					34			2,714				1,389	925			5,061		
<i>Eastside Kodiak District</i>																				
Saltery Lake ^a	546	%			0.3		28.4	1.6		6.9	12.0		0.3	49.2	1.4			100.0		
		#			92		9,779	555		2,379	4,129		92	16,969	496			34,490		
Totals	11,400	%	0.0	0.0	0.8	0.0	6.3	5.3	0.0	3.5	36.9	0.8	0.1	32.3	8.9	0.2	4.4	0.0	100.0	
		#	96	177	11,652	597	89,080	74,910	597	49,263	521,908	11,210	1,643	456,497	126,312	2,879	62,878	3,925	608	1,414,231

Table 7. Estimated age composition of Malina Lakes sockeye salmon escapement by week, 2002.

Week	Sample Size	Ages									Total	
		1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3			
21 5/17-5/23	0	Percent	0.0	31.3	0.0	41.8	10.4	0.0	0.0	16.4	100.0	
		Numbers	0	3	0	3	1	0	0	1	8	
22 5/24-5/30	67	Percent	0.0	31.3	0.0	41.8	10.4	0.0	0.0	16.4	100.0	
		Numbers	0	1,040	0	1,387	347	0	0	545	3,319	
23 5/31-6/06	91	Percent	0.2	48.9	0.3	31.6	11.7	0.0	0.1	7.2	100.0	
		Numbers	12	3,458	23	2,232	824	0	6	511	7,067	
24 6/07-6/13	249	Percent	1.0	60.4	3.2	20.8	10.6	0.1	0.3	3.6	100.0	
		Numbers	115	6,793	360	2,340	1,188	7	36	403	11,243	
25 6/14-6/20	134	Percent	3.8	53.4	18.0	12.9	9.4	0.6	0.1	1.8	100.0	
		Numbers	367	5,113	1,719	1,235	900	53	8	171	9,567	
26 6/21-6/27	13	Percent	7.5	39.4	23.0	29.3	0.7	0.1	0.0	0.1	100.0	
		Numbers	75	398	233	296	7	1	0	1	1,010	
Total		Percent	1.8	52.2	7.2	23.3	10.1	0.2	0.2	5.1	100.0	
		Numbers	570	16,805	2,335	7,494	3,267	60	50	1,633	32,214	

Table 8. Length composition of Malina Lakes sockeye salmon escapement samples by age and sex, 2002.

	Ages								
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	Total
Females									
Mean Length (mm)	-	466	523	-	-	462	538	-	481
SE	-	2	4	-	-	6	8	-	2
Range	-	390-559	445-581	-	-	400-538	477-583	-	390-583
Sample Size	0	167	59	0	0	37	13	0	276
Males									
Mean Length (mm)	315	484	538	590	326	474	553	350	474
SE	5	3	5	-	4	9	11	-	5
Range	300-340	375-582	450-610	590-590	280-400	390-521	443-614	350-350	280-614
Sample Size	9	128	67	1	37	20	15	1	278
All Fish									
Mean Length (mm)	315	474	531	590	326	466	546	350	477
SE	5	2	3	-	4	5	7	-	3
Range	300-340	375-582	445-610	590-590	280-400	390-538	443-614	350-350	280-614
Sample Size	9	295	126	1	37	57	28	1	554

Table 9. Estimated sex composition of Malina Lakes sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement			Number		
		Females	Males	Total	Percent	Females	Males	Females	Males	Total
21	5/17-5/23	0	0	0	43.8	56.3		4	5	8
22	5/24-5/30	35	45	80	43.8	56.3		1,452	1,867	3,319
23	5/31-6/06	108	90	198	53.0	47.0		3,748	3,319	7,067
24	6/07-6/13	140	140	280	50.6	49.4		5,687	5,556	11,243
25	6/14-6/20	80	78	158	49.9	50.1		4,777	4,790	9,567
26	6/21-6/27	5	8	13	39.3	60.7		397	613	1,010
Total		368	361	729	49.9	50.1		16,064	16,149	32,214

Table 10. Estimated age composition of Pauls Lake (Laura) sockeye salmon escapement, 2002.

Week	Sample Size	Ages									Total	
		1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.2			
25 6/14-6/20	0	Percent	1.0	44.7	1.9	37.9	11.7	0.0	2.9	0.0	100.0	
		Numbers	102	4,686	204	3,973	1,222	0	306	0	10,493	
26 6/21-6/27	103	Percent	1.0	44.7	1.9	37.9	11.7	0.0	2.9	0.0	100.0	
		Numbers	43	1,980	86	1,679	516	0	129	0	4,433	
27 6/28-7/04	152	Percent	9.9	41.6	8.1	23.1	14.2	0.0	2.6	0.6	100.0	
		Numbers	1,180	4,959	959	2,750	1,688	0	312	68	11,916	
28 7/05-7/11	116	Percent	15.0	40.1	8.9	21.9	12.4	0.2	1.5	0.0	100.0	
		Numbers	31	83	19	46	26	0	3	0	208	
29 7/12-7/18	132	Percent	13.6	43.9	4.6	25.7	10.6	0.8	0.8	0.0	100.0	
		Numbers	213	687	71	403	166	12	12	0	1,564	
30 7/19-7/25	0	Percent	13.6	43.9	4.5	25.8	10.6	0.8	0.8	0.0	100.0	
		Numbers	254	817	85	479	197	14	14	0	1,860	
Total		Percent	6.0	43.4	4.7	30.6	12.5	0.1	2.5	0.2	100.0	
		Numbers	1,823	13,213	1,424	9,329	3,815	26	776	68	30,474 ^a	

^a Age composition estimates represent escapement through week 30. The total Pauls Lake sockeye salmon escapement was 31,911.

Table 11. Length composition of Pauls Lake (Laura) sockeye salmon escapement samples by age and sex, 2002.

	Ages								
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.2	Total
Females									
Mean Length (mm)	-	471	540	-	-	469	520	460	497
SE	-	3	3	-	-	5	23	-	3
Range	-	405-575	425-610	-	-	410-510	470-585	460-460	405-610
Sample Size	0	103	76	0	0	29	5	1	214
Males									
Mean Length (mm)	328	496	558	550	339	493	571	-	460
SE	3	3	6	-	5	7	13	-	5
Range	275-370	400-590	430-630	550-550	290-450	420-600	535-615	-	275-630
Sample Size	53	109	54	1	33	34	5	0	289
All Fish									
Mean Length (mm)	328	484	548	550	339	482	545	460	476
SE	3	2	3	-	5	4	15	-	3
Range	275-370	400-590	425-630	550-550	290-450	410-600	470-615	460-460	275-630
Sample Size	53	212	130	1	33	63	10	1	503

Table 12. Estimated sex composition of Pauls Lake (Laura) sockeye salmon escapement, 2002.

Week	Dates	Sample Size			Escapement					
		Females	Males	Total	Percent		Number			
					Females	Males	Females	Males	Total	
25	6/14-6/20	0	0	0	44.0	56.0	4,613	5,880	10,493	
26	6/21-6/27	51	65	116	44.0	56.0	1,949	2,484	4,433	
27	6/28-7/04	77	107	184	42.0	58.0	5,003	6,913	11,916	
28	7/05-7/11	53	77	130	41.9	58.1	87	121	208	
29	7/12-7/18	77	93	170	45.3	54.7	708	856	1,564	
30	7/19-7/25	0	0	0	45.3	54.7	842	1,018	1,860	
Total		258	342	600	43.3	56.7	13,205	17,269	30,474	^a

^a Age composition estimates represent escapement through week 30. The total Pauls Lake sockeye salmon escapement was 31,911.

Table 13. Estimated age composition of Afognak Lake (Litnik) sockeye salmon escapement by week, 2002.

Week	Sample Size	Ages									Total	
		1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2			
22 5/24-5/30	0	Percent	0.0	0.0	0.0	61.8	11.8	0.0	5.9	20.6	100.0	
		Numbers	0	0	0	145	28	0	14	48	235	
23 5/31-6/06	0	Percent	0.0	0.0	0.0	61.8	11.8	0.0	5.9	20.6	100.0	
		Numbers	0	0	0	582	111	0	55	194	943	
24 6/07-6/13	34	Percent	0.0	0.0	0.1	60.0	12.7	0.2	6.0	20.9	100.0	
		Numbers	0	0	2	1,120	237	5	112	390	1,866	
25 6/14-6/20	99	Percent	0.0	0.2	1.5	47.1	19.3	1.8	6.7	23.4	100.0	
		Numbers	0	10	78	2,458	1,010	94	351	1,220	5,222	
26 6/21-6/27	0	Percent	0.0	2.1	7.0	32.6	26.3	1.2	4.2	26.6	100.0	
		Numbers	0	93	307	1,439	1,160	53	187	1,173	4,413	
27 6/28-7/04	0	Percent	0.0	3.9	11.9	20.2	32.2	0.5	1.9	29.4	100.0	
		Numbers	0	59	180	304	485	8	28	443	1,506	
28 7/05-7/11	19	Percent	0.4	4.5	12.8	10.2	34.5	0.0	1.8	35.8	100.0	
		Numbers	1	13	37	30	101	0	5	105	293	
29 7/12-7/18	49	Percent	1.9	2.1	2.3	6.2	27.0	0.0	7.8	52.6	100.0	
		Numbers	17	18	20	54	235	0	68	458	871	
30 7/19-7/25	37	Percent	0.0	0.0	0.0	5.4	35.0	0.0	2.8	56.7	100.0	
		Numbers	1	1	1	107	694	0	55	1,123	1,981	
31 7/26-8/01	0	Percent	0.0	0.0	0.0	5.4	35.1	0.0	2.7	56.8	100.0	
		Numbers	0	0	0	25	162	0	12	261	460	
Total		Percent	0.1	1.1	3.5	35.2	23.7	0.9	5.0	30.4	100.0	
		Numbers	19	194	625	6,264	4,222	160	888	5,417	17,790 ^a	

^a Age composition estimates represent escapement through 1 August. The total Litnik sockeye salmon escapement was 19,520.

Table 14. Length composition of Afognak Lake (Litnik) sockeye salmon escapement samples by age and sex, 2002.

	Ages								
	1.1	1.2	1.3	2.1	2.2	2.3	3.1	3.2	Total
Females									
Mean Length (mm)	389	475	512	-	475	511	-	474	486
SE	-	-	7	-	5	11	-	4	3
Range	389-389	475-475	425-582	-	412-563	473-562	-	411-534	389-582
Sample Size	1	1	36	0	39	7	0	45	129
Males									
Mean Length (mm)	-	483	549	343	491	541	363	492	506
SE	-	-	7	9	11	13	48	7	6
Range	-	483-483	448-632	319-367	409-563	500-604	316-411	410-581	316-632
Sample Size	0	1	38	5	16	7	2	37	106
All Fish									
Mean Length (mm)	389	479	531	343	480	526	363	482	495
SE	-	4	5	9	5	9	48	4	3
Range	389-389	475-483	425-632	319-367	409-563	473-604	316-411	410-581	316-632
Sample Size	1	2	74	5	55	14	2	82	235

Table 15. Estimated sex composition of Afognak Lake (Litnik) sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement			Number		
		Females	Males	Total	Percent	Females	Males	Females	Males	Total
22	5/24-5/30	0	0	0	52.5	47.5		123	112	235
23	5/31-6/06	0	0	0	52.5	47.5		495	448	943
24	6/07-6/13	21	19	40	52.2	47.8		974	892	1,866
25	6/14-6/20	60	60	120	50.5	49.5		2,638	2,584	5,222
26	6/21-6/27	0	0	0	53.7	46.3		2,368	2,045	4,413
27	6/28-7/04	0	0	0	56.7	43.3		854	652	1,506
28	7/05-7/11	13	9	22	57.7	42.3		169	124	293
29	7/12-7/18	37	33	70	53.3	46.7		465	406	871
30	7/19-7/25	27	13	40	67.3	32.7		1,333	648	1,981
31	7/26-8/01	0	0	0	67.5	32.5		311	150	460
Total		158	134	292	54.7	45.3		9,729	8,061	17,790

^a Sex composition estimates represent escapement through 1 August. The total Litnik sockeye salmon escapement was 19,520.

Table 16. Estimated age composition of Little River Lake sockeye salmon escapement, 2002.

Week	Sample Size	Ages										Total	
		1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	4.2			
23 5/31-6/06	31	Percent	17.8	0.0	2.7	0.0	2.7	3.1	66.9	0.0	6.8	100.0	
		Numbers	916	0	141	0	141	158	3,447	0	352	5,154	
24 6/07-6/13	45	Percent	42.1	0.3	0.5	0.0	0.5	2.4	45.2	0.3	8.8	100.0	
		Numbers	5,728	42	61	0	61	329	6,162	42	1,194	13,620	
25 6/14-6/20	37	Percent	59.0	2.4	0.0	0.7	0.0	2.3	22.8	2.1	10.6	100.0	
		Numbers	6,587	272	0	77	0	258	2,546	233	1,185	11,157	
26 6/21-6/27	37	Percent	56.7	3.6	0.0	3.8	0.0	0.1	25.8	0.1	9.7	100.0	
		Numbers	1,169	75	0	79	0	3	533	3	200	2,061	
27 6/28-7/04	31	Percent	70.7	8.6	0.0	0.0	0.0	0.0	15.4	0.0	5.2	100.0	
		Numbers	1,204	146	0	1	0	0	262	0	89	1,702	
28 7/05-7/11	34	Percent	71.2	16.8	0.0	0.0	0.0	0.0	11.5	0.0	0.5	100.0	
		Numbers	185	44	0	0	0	0	30	0	1	260	
29 7/12-7/18	17	Percent	82.0	17.6	0.0	0.0	0.0	0.0	0.3	0.0	0.0	100.0	
		Numbers	90	19	0	0	0	0	0	0	0	110	
Total		Percent	46.6	1.8	0.6	0.5	0.6	2.2	38.1	0.8	8.9	100.0	
		Numbers	15,879	598	202	156	202	748	12,979	278	3,022	34,064	

Table 17. Length composition of Little River Lake sockeye salmon escapement samples by age and sex, 2002.

	Ages									
	1.2	1.3	1.4	2.1	2.2	2.3	3.2	3.3	4.2	Total
Females										
Mean Length (mm)	470	-	-	381	486	495	476	535	475	472
SE	3	-	-	-	-	-	3	-	8	2
Range	419-519	-	-	381-381	486-486	495-495	418-520	535-535	434-507	381-535
Sample Size	76	0	0	1	1	1	38	1	9	127
Males										
Mean Length (mm)	476	510	509	381	461	567	470	-	482	466
SE	5	-	-	13	-	4	8	-	18	5
Range	385-539	510-510	509-509	310-480	461-461	563-571	383-544	-	410-535	310-571
Sample Size	50	1	1	12	1	2	31	0	7	105
All Fish										
Mean Length (mm)	472	510	509	381	473	543	473	535	478	469
SE	3	-	-	12	13	24	4	-	9	3
Range	385-539	510-510	509-509	310-480	461-486	495-571	383-544	535-535	410-535	310-571
Sample Size	126	1	1	13	2	3	69	1	16	232

Table 18. Estimated sex composition of Little River Lake sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement			Number		
		Females	Males	Total	Percent	Females	Males	Females	Males	Total
23	5/31-6/06	11	26	37	33.8	66.2		1,743	3,411	5,154
24	6/07-6/13	27	21	48	52.1	47.9		7,099	6,521	13,620
25	6/14-6/20	21	19	40	55.1	44.9		6,147	5,010	11,157
26	6/21-6/27	28	12	40	66.1	33.9		1,362	699	2,061
27	6/28-7/04	19	14	33	58.1	41.9		989	713	1,702
28	7/05-7/11	21	14	35	59.3	40.7		154	106	260
29	7/12-7/18	10	10	20	50.3	49.7		55	55	110
Total		137	116	253	51.5	48.5		17,550	16,512	34,062

Table 19. Estimated age composition of Karluk Lake early-run sockeye salmon escapement by week, 2002.

Week	Sample Size	Ages												Total		
		1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	4.2	3.4			
22 5/24-5/30	0	Percent	0.0	1.9	1.4	2.3	24.1	0.0	49.5	11.1	0.5	9.3	0.0	0.0	100.0	
		Numbers	0	4	3	5	48	0	99	22	1	19	0	0	200	
23 5/31-6/06	216	Percent	0.0	1.8	1.4	2.3	24.4	0.0	48.9	11.6	0.5	9.2	0.0	0.0	100.0	
		Numbers	0	1,469	1,116	1,850	20,046	28	40,114	9,485	381	7,512	0	28	82,028	
24 6/07-6/13	205	Percent	0.0	0.8	1.8	1.3	32.8	0.3	37.0	16.7	0.3	8.5	0.1	0.3	100.0	
		Numbers	0	1,247	2,823	2,008	52,115	488	58,839	26,588	556	13,477	206	488	158,834	
25 6/14-6/20	215	Percent	0.0	0.2	3.3	0.5	44.6	0.2	26.2	15.6	0.0	9.2	0.4	0.0	100.0	
		Numbers	0	219	4,534	671	61,520	258	36,109	21,492	60	12,638	490	60	138,052	
26 6/21-6/27	206	Percent	0.2	0.4	2.9	0.1	56.1	0.9	24.8	8.0	0.0	6.6	0.0	0.0	100.0	
		Numbers	47	119	874	29	17,153	285	7,588	2,460	0	2,020	5	0	30,581	
27 6/28-7/04	206	Percent	0.9	0.1	5.6	0.6	48.0	1.0	33.7	5.0	0.0	5.1	0.0	0.0	100.0	
		Numbers	260	30	1,626	174	13,898	277	9,768	1,445	0	1,485	0	0	28,963	
28 7/05-7/11	225	Percent	0.8	0.3	10.0	1.2	43.3	0.9	32.2	4.7	0.1	6.2	0.0	0.1	100.0	
		Numbers	101	43	1,270	155	5,495	114	4,090	597	13	791	0	13	12,682	
29 7/12-7/18	216	Percent	0.4	0.1	9.8	0.8	39.7	1.1	34.2	5.4	0.4	7.7	0.0	0.4	100.0	
		Numbers	18	4	418	35	1,697	48	1,461	231	19	330	0	16	4,276	
30 7/19-7/21	222	Percent	0.2	0.3	9.8	0.4	36.0	1.7	38.0	5.2	0.5	7.7	0.0	0.2	100.0	
		Numbers	2	3	121	5	441	21	466	64	6	95	0	2	1,226	
Total		Percent	0.1	0.7	2.8	1.1	37.7	0.3	34.7	13.7	0.2	8.4	0.2	0.1	100.0	
		Numbers	428	3,138	12,785	4,931	172,414	1,519	158,534	62,384	1,036	38,365	701	608	456,842	

Table 20. Length composition of Karluk Lake early-run sockeye salmon escapement samples by age and sex, 2002.

	Ages												
	1.1	1.2	1.3	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.2	Total
Females													
Mean Length (mm)	-	473	532	431	500	549	-	-	501	543	540	-	521
SE	-	25	11	-	2	2	-	-	4	5	-	-	1
Range	-	415-540	499-584	431-431	389-590	448-650	-	-	440-561	436-624	540-540	-	389-650
Sample Size	0	5	7	1	358	286	0	0	70	60	1	0	788
Males													
Mean Length (mm)	332	466	546	374	503	571	562	393	504	556	554	523	515
SE	14	22	14	3	2	2	16	8	4	5	-	-	3
Range	298-384	430-530	507-628	305-419	397-625	461-653	545-595	355-415	410-565	425-639	554-554	523-523	298-653
Sample Size	5	4	8	71	264	236	3	9	76	55	1	1	733
All Fish													
Mean Length (mm)	332	470	540	374	502	559	562	393	503	550	547	523	518
SE	14	16	9	3	1	1	16	8	3	3	7	-	1
Range	298-384	415-540	499-628	305-431	389-625	448-653	545-595	355-415	410-565	425-639	540-554	523-523	298-653
Sample Size	5	9	15	72	622	522	3	9	146	115	2	1	1,521

Table 21. Estimated sex composition of Karluk Lake early-run sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement				
		Females	Males	Total	Percent		Number		
					Females	Males	Females	Males	Total
22	5/24-5/30	0	0	0	45.0	55.0	90	110	200
23	5/31-6/06	108	132	240	44.7	55.3	36,673	45,355	82,028
24	6/07-6/13	98	142	240	42.5	57.5	67,492	91,342	158,834
25	6/14-6/20	109	131	240	46.8	53.2	64,670	73,382	138,052
26	6/21-6/27	139	101	240	56.5	43.5	17,264	13,317	30,581
27	6/28-7/04	124	116	240	53.6	46.4	15,521	13,442	28,963
28	7/05-7/11	146	94	240	59.6	40.4	7,563	5,119	12,682
29	7/12-7/18	135	105	240	56.9	43.1	2,433	1,843	4,276
30	7/19-7/21	141	99	240	57.7	42.3	707	519	1,226
Total		1,000	920	1,920	46.5	53.5	212,409	244,433	456,842

Table 22. Estimated age composition of Karluk Lake late-run sockeye salmon escapement by week, 2002.

Week	Sample Size	Ages													Total
		1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	4.2	3.4		
30 7/22-7/25	222	Percent	0.0	0.5	9.6	0.1	33.1	2.1	41.3	5.3	0.5	7.6	0.0	0.0	100.0
		Numbers	1	8	169	1	580	37	724	92	8	133	1	0	1,755
31 7/26-8/01	212	Percent	0.5	1.2	4.0	0.5	37.5	0.6	37.6	10.5	0.8	6.1	0.8	0.0	100.0
		Numbers	79	179	611	79	5,736	88	5,754	1,600	120	938	118	0	15,304
32 8/02-8/08	119	Percent	0.7	0.5	4.1	0.7	34.0	2.2	42.6	8.5	0.3	6.2	0.3	0.0	100.0
		Numbers	42	27	244	41	2,041	133	2,554	511	19	370	20	0	6,002
33 8/09-8/15	290	Percent	0.2	0.2	2.4	0.0	42.3	1.0	31.1	13.9	0.2	8.4	0.4	0.0	100.0
		Numbers	33	32	385	1	6,700	162	4,921	2,195	32	1,324	63	0	15,847
34 8/16-8/22	213	Percent	0.0	0.0	0.2	0.0	58.3	0.6	22.0	13.6	0.0	5.3	0.0	0.0	100.0
		Numbers	0	0	14	0	4,442	44	1,677	1,039	0	408	0	0	7,624
35 8/23-8/29	127	Percent	0.0	0.0	2.7	0.0	58.9	2.1	14.7	20.1	0.0	1.5	0.0	0.0	100.0
		Numbers	0	0	77	0	1,689	60	422	575	0	43	0	0	2,866
36 8/30-9/05	206	Percent	0.0	0.0	3.5	0.0	49.1	1.9	28.0	13.0	0.0	4.5	0.0	0.0	100.0
		Numbers	0	0	4,944	0	68,490	2,637	39,148	18,107	0	6,253	0	0	139,579
37 9/06-9/12	218	Percent	0.0	0.0	6.4	0.0	56.9	3.2	16.5	13.3	0.0	3.7	0.0	0.0	100.0
		Numbers	0	0	3,704	0	32,808	1,852	9,525	7,673	0	2,117	0	0	57,679
38 9/13-9/19	0	Percent	0.0	0.0	6.4	0.0	56.9	3.2	16.5	13.3	0.0	3.7	0.0	0.0	100.0
		Numbers	0	0	4,506	0	39,914	2,253	11,588	9,335	0	2,575	0	0	70,171
Total	1,607	Percent	0.0	0.1	4.6	0.0	51.3	2.3	24.1	13.0	0.1	4.5	0.1	0.0	100.0
		Numbers	155	247	14,655	123	162,401	7,266	76,313	41,126	179	14,160	202	0	316,827 ^a

^a Age composition estimates represent escapement through week 38. The total Karluk Lake late-run sockeye salmon escapement was 408,734.

Table 23. Length composition of Karluk Lake late-run sockeye salmon escapement samples by age and sex, 2002.

	Ages											
	1.1	1.2	1.3	2.1	2.2	2.3	2.4	3.1	3.2	3.3	4.2	Total
Females												
Mean Length (mm)	-	517	534	380	524	570	557	-	529	578	528	538
SE	-	7	24	25	1	2	-	-	3	4	26	1
Range	-	511-524	511-558	304-440	441-611	490-667	557-557	-	425-600	536-628	502-554	304-667
Sample Size	0	2	2	5	352	174	1	0	90	29	2	657
Males												
Mean Length (mm)	328	528	-	394	548	597	606	404	551	599	574	555
SE	11	27	-	5	2	1	26	6	3	3	23	2
Range	307-345	502-555	-	331-468	431-641	526-668	562-651	342-461	453-652	552-670	551-597	307-670
Sample Size	3	2	0	60	323	322	3	25	104	65	2	909
All Fish												
Mean Length (mm)	328	523	534	393	535	587	594	404	541	592	551	548
SE	11	12	24	5	1	1	22	6	2	3	19	1
Range	307-345	502-555	511-558	304-468	431-641	490-668	557-651	342-461	425-652	536-670	502-597	304-670
Sample Size	3	4	2	65	675	496	4	25	194	94	4	1,566

Table 24. Estimated sex composition of Karluk Lake late-run sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement					
		Females	Males	Total	Percent	Females	Males	Number	Females	Males
30	7/22-7/25	141	99	240	58.3	41.7		1,024	731	1,755
31	7/26-8/01	123	117	240	49.8	50.2		7,624	7,680	15,304
32	8/02-8/08	53	77	130	43.9	56.1		2,635	3,367	6,002
33	8/09-8/15	135	225	360	34.9	65.1		5,538	10,309	15,847
34	8/16-8/22	75	165	240	31.6	68.4		2,407	5,217	7,624
35	8/23-8/29	88	152	240	35.9	64.1		1,028	1,838	2,866
36	8/30-9/05	92	148	240	43.5	56.5		60,693	78,886	139,579
37	9/06-9/12	116	124	240	48.3	51.7		27,878	29,801	57,679
38	9/13-9/19	0	0	0	48.3	51.7		33,916	36,255	70,171
Total		823	1,107	1,930	45.1	54.9		142,739	174,088	316,827

^a Age composition estimates represent escapement through week 38. The total Karluk Lake late-run sockeye salmon escapement was 408,734.

Table 25. Estimated age composition of Red Lake (Ayakulik River) sockeye salmon escapement by week, 2002.

Week	Sample Size		Ages												Total	
			1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	2.3	3.2	2.4	3.3		
23 5/31-6/06	208	Percent	0.0	0.5	9.3	0.0	0.5	5.7	5.5	0.0	75.1	0.0	0.0	3.3	100.0	
		Numbers	0	215	4,159	0	215	2,547	2,431	0	33,504	0	20	1,493	44,584	
24 6/07-6/13	200	Percent	0.4	0.4	12.6	0.4	0.4	4.9	8.1	0.0	69.1	0.1	0.8	2.8	100.0	
		Numbers	232	248	7,321	232	248	2,827	4,705	0	40,150	39	448	1,648	58,100	
25 6/14-6/20	210	Percent	2.0	0.1	12.4	2.0	0.1	5.4	7.4	0.0	67.7	0.3	0.6	1.9	100.0	
		Numbers	764	56	4,690	765	56	2,028	2,788	0	25,641	127	239	717	37,870	
26 6/21-6/27	203	Percent	3.5	0.0	13.9	4.1	0.0	5.2	8.3	0.0	62.6	0.2	0.5	1.8	100.0	
		Numbers	640	0	2,525	745	0	953	1,512	0	11,401	35	88	321	18,220	
27 6/28-7/04	149	Percent	5.1	0.0	10.5	5.1	0.0	3.2	13.5	0.0	59.3	0.0	0.1	3.1	100.0	
		Numbers	530	0	1,090	525	0	330	1,394	0	6,127	4	9	321	10,330	
28 7/05-7/11	128	Percent	5.4	0.0	12.4	1.1	0.0	5.2	18.8	0.0	53.3	0.7	0.0	3.2	100.0	
		Numbers	300	0	695	61	0	289	1,051	0	2,984	40	1	176	5,596	
29 7/12-7/18	196	Percent	2.2	0.0	16.9	0.9	0.0	1.6	29.2	0.0	45.2	0.3	0.3	3.3	100.0	
		Numbers	128	0	988	53	0	95	1,705	0	2,640	19	20	196	5,843	
30 7/19-7/25	190	Percent	0.4	0.0	24.8	0.3	0.0	1.4	37.8	0.0	31.5	1.4	0.2	2.2	100.0	
		Numbers	29	0	2,084	28	0	118	3,172	1	2,650	118	15	186	8,402	
31 7/26-8/01	83	Percent	1.2	0.0	17.3	0.0	0.0	1.2	54.8	1.2	21.9	1.2	1.2	0.1	100.0	
		Numbers	70	0	1,048	0	0	75	3,311	70	1,321	75	70	4	6,044	
Total		Percent	1.4	0.3	12.6	1.2	0.3	4.7	11.3	0.0	64.8	0.2	0.5	2.6	100.0	
		Numbers	2,693	519	24,601	2,409	519	9,261	22,070	71	126,419	456	910	5,062	194,989	

^a Age composition estimates represent escapement from week 23-31. The total Ayakulik sockeye salmon escapement was 229,292.

Table 26. Length composition of Red Lake (Ayakulik River) sockeye salmon escapement samples by age and sex, 2002.

	Ages												
	0.3	0.4	1.1	1.2	1.3	2.1	2.2	2.3	2.4	3.1	3.2	3.3	Total
Females													
Mean Length (mm)	554	600	-	518	547	386	524	550	562	-	523	558	540
SE	1	-	-	2	3	-	2	1	12	-	19	6	1
Range	554-555	600-600	-	454-588	480-585	386-386	425-651	480-621	537-592	-	486-551	510-604	386-651
Sample Size	2	1	0	118	40	1	142	427	4	0	3	17	755
Males													
Mean Length (mm)	-	629	334	535	563	349	540	559	573	364	525	571	537
SE	-	-	2	3	5	3	2	1	11	-	12	5	2
Range	-	629-629	306-364	444-594	530-601	316-390	455-613	486-644	562-584	364-364	491-539	532-620	306-644
Sample Size	0	1	32	117	19	25	151	437	2	1	4	22	811
All Fish													
Mean Length (mm)	554	614	334	526	552	350	532	555	565	364	524	565	539
SE	1	15	2	2	3	3	2	1	8	-	10	4	1
Range	554-555	600-629	306-364	444-594	480-601	316-390	425-651	480-644	537-592	364-364	486-551	510-620	306-651
Sample Size	2	2	32	235	59	26	293	864	6	1	7	39	1,566

Table 27. Estimated sex composition of Red Lake (Ayakulik River) sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement				
		Females	Males	Total	Percent		Number		
					Females	Males	Females	Males	Total
21	5/17-5/23	0	0	0	45.8	54.2	143	169	312
22	5/24-5/30	0	0	0	45.8	54.2	7,371	8,711	16,082
23	5/31-6/06	110	130	240	45.7	54.3	20,385	24,199	44,584
24	6/07-6/13	104	136	240	44.3	55.7	25,740	32,360	58,100
25	6/14-6/20	114	126	240	46.3	53.7	17,532	20,338	37,870
26	6/21-6/27	134	106	240	52.4	47.6	9,548	8,672	18,220
27	6/28-7/04	89	87	176	51.2	48.8	5,286	5,044	10,330
28	7/05-7/11	65	82	147	44.7	55.3	2,501	3,095	5,596
29	7/12-7/18	109	124	233	46.1	53.9	2,696	3,147	5,843
30	7/19-7/25	114	122	236	47.8	52.2	4,017	4,385	8,402
31	7/26-8/01	48	50	98	49.0	51.0	2,959	3,085	6,044
32	8/02-8/08	0	0	0	49.0	51.0	3,240	3,376	6,616
Total		887	963	1,850	46.5	53.5	101,419	116,580	217,999^a

^a Age composition estimates represent escapement from week 21-32. The total Ayakulik sockeye salmon escapement was 229,292.

Table 28. Estimated age composition of Olga Lakes (Upper Station) early-run sockeye salmon escapement by week, 2002.

Week	Sample Size	Ages										Total	
		1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3		
22 5/24-5/30	34	Percent	0.0	0.0	5.9	5.9	23.5	0.0	0.0	61.8	2.9	0.0	100.0
		Numbers	0	0	105	105	421	0	0	1,106	53	0	1,791
23 5/31-6/06	267	Percent	0.5	0.3	5.2	2.1	25.9	0.0	0.3	64.1	1.3	0.5	100.0
		Numbers	30	16	335	132	1,671	0	16	4,127	81	32	6,441
24 6/07-6/13	204	Percent	2.0	0.1	8.4	1.3	36.1	0.0	0.1	51.3	0.5	0.2	100.0
		Numbers	208	10	854	132	3,695	0	9	5,246	56	18	10,229
25 6/14-6/20	206	Percent	5.4	0.3	26.2	1.1	32.5	0.0	0.0	34.0	0.5	0.0	100.0
		Numbers	454	28	2,209	92	2,745	3	0	2,870	39	3	8,443
26 6/21-6/27	155	Percent	17.9	0.2	30.5	0.8	23.5	0.5	0.0	26.1	0.1	0.5	100.0
		Numbers	813	7	1,380	34	1,065	22	0	1,181	5	22	4,528
27 6/28-7/04	116	Percent	26.3	1.5	33.4	1.5	25.3	0.1	0.0	11.9	0.0	0.1	100.0
		Numbers	645	37	818	37	620	2	0	291	0	2	2,453
28 7/05-7/11	106	Percent	19.3	1.7	24.8	0.9	34.2	0.1	0.0	17.9	0.7	0.2	100.0
		Numbers	364	33	467	18	643	2	0	337	13	4	1,880
29 7/12-7/15	166	Percent	8.2	1.3	9.2	0.7	68.0	0.6	0.0	7.7	3.3	1.1	100.0
		Numbers	86	13	96	7	705	6	0	79	34	11	1,037
Total	1,254	Percent	7.1	0.4	17.0	1.5	31.4	0.1	0.1	41.4	0.8	0.2	100.0
		Numbers	2,598	145	6,264	558	11,566	34	25	15,238	281	92	36,802

Table 29. Length composition of Olga Lakes (Upper Station) early-run sockeye salmon escapement samples by age and sex, 2002.

	Ages										
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	3.2	3.3	Total
Females											
Mean Length (mm)	361	540	560	578	382	511	548	-	524	556	519
SE	7	9	10	-	3	2	2	-	12	0	2
Range	341-418	524-556	529-629	578-578	349-422	381-613	427-631	-	460-584	556-556	341-631
Sample Size	12	3	9	1	32	238	268	0	9	2	574
Males											
Mean Length (mm)	340	540	562	-	372	542	564	387	601	454	463
SE	2	45	17	-	1	4	3	4	-	92	4
Range	300-397	362-603	524-603	-	314-421	372-645	319-622	383-391	601-601	362-546	300-645
Sample Size	104	5	5	0	195	159	171	2	1	2	644
All Fish											
Mean Length (mm)	342	540	561	578	373	523	554	387	531	505	490
SE	2	27	8	-	1	2	2	4	13	48	3
Range	300-418	362-603	524-629	578-578	314-422	372-645	319-631	383-391	460-601	362-556	300-645
Sample Size	116	8	14	1	227	397	439	2	10	4	1,218

Table 30. Estimated sex composition of Olga Lakes (Upper Station) early-run sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement				Total	
		Females	Males	Total	Percent	Females	Males	Number		
22	5/24-5/30	33	7	40	82.5	17.5		1,478	313	1,791
23	5/31-6/06	220	100	320	71.0	29.0		4,576	1,865	6,441
24	6/07-6/13	135	105	240	58.8	41.2		6,010	4,219	10,229
25	6/14-6/20	94	146	240	43.4	56.6		3,664	4,779	8,443
26	6/21-6/27	60	116	176	35.6	64.4		1,614	2,914	4,528
27	6/28-7/04	56	64	120	44.3	55.7		1,087	1,366	2,453
28	7/05-7/11	45	75	120	37.0	63.0		696	1,184	1,880
29	7/12-7/15	61	131	192	32.8	67.2		340	697	1,037
Total		704	744	1,448	52.9	47.1		19,461	17,341	36,802

Table 31. Estimated age composition of Olga Lakes (Upper Station) late-run sockeye salmon escapement, 2002.

Week	Sample Size	Ages													Total		
		0.1	0.2	1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3				
29 7/16-7/18	166	Percent	0.0	0.0	5.8	1.4	5.5	0.9	76.7	0.7	4.9	3.2	0.1	0.8	100.0		
		Numbers	0	0	61	15	59	10	814	7	52	33	1	8	1,061		
30 7/19-7/25	265	Percent	0.0	0.0	3.7	1.7	2.2	1.4	85.0	0.7	2.6	2.3	0.3	0.2	100.0		
		Numbers	0	0	152	68	88	56	3,455	27	108	93	12	7	4,066		
31 7/26-8/01	217	Percent	0.0	0.0	4.0	0.8	2.4	1.3	85.3	0.1	5.2	0.8	0.1	0.0	100.0		
		Numbers	0	0	376	78	229	122	8,057	13	491	74	6	0	9,446		
32 8/02-8/08	221	Percent	0.0	0.0	1.3	1.5	5.5	0.4	87.8	0.0	2.8	0.5	0.0	0.0	100.0		
		Numbers	0	8	356	398	1,456	118	23,228	0	743	139	0	0	26,446		
33 8/09-8/15	144	Percent	0.0	0.4	0.8	1.3	7.4	2.2	84.3	0.1	1.9	1.5	0.0	0.0	100.0		
		Numbers	0	152	261	466	2,551	761	29,159	52	670	514	0	17	34,603		
34 8/16-8/22	219	Percent	0.1	0.1	1.7	0.4	11.9	0.3	81.2	1.5	1.8	0.8	0.0	0.3	100.0		
		Numbers	20	17	501	135	3,611	84	24,546	439	550	237	0	106	30,245		
35 8/23-8/29	230	Percent	0.3	0.0	1.4	1.7	12.8	0.0	75.7	2.8	3.5	1.9	0.0	0.0	100.0		
		Numbers	67	0	275	352	2,595	0	15,350	559	706	379	0	5	20,287		
36 8/30-9/05	212	Percent	0.1	0.0	1.4	0.7	13.5	0.0	75.4	3.6	2.6	2.7	0.0	0.0	100.0		
		Numbers	9	0	221	110	2,136	0	11,906	571	405	424	0	0	15,782		
37 9/06-9/12	0	Percent	0.0	0.0	1.4	0.5	13.7	0.0	75.5	3.8	2.4	2.8	0.0	0.0	100.0		
		Numbers	0	0	62	21	604	0	3,333	167	104	125	0	0	4,416		
Total		1674	Percent	0.1	0.1	1.5	1.1	9.1	0.8	81.9	1.3	2.6	1.4	0.0	0.1	100.0	
			Numbers	96	177	2,266	1,642	13,330	1,151	119,847	1,833	3,827	2,019	20	143	146,351 ^a	

^a Age composition estimates represent escapement from week 29-37. The total Upper Station late-run sockeye salmon escapement was 150,346.

Table 32. Length composition of Olga Lakes (Upper Station) late-run sockeye salmon escapement samples by age and sex, 2002.

	Ages													
	0.1	0.2	1.1	1.2	1.3	2.1	2.2	2.3	2.4	3.1	3.2	3.3	Total	
Females														
Mean Length (mm)	-	-	405	526	564	426	543	573	574	-	551	590	543	
SE	-	-	27	13	11	8	1	4	-	-	6	-	1	
Range	-	-	378-432	465-588	534-596	402-458	447-629	515-621	574-574	-	525-593	590-590	378-629	
Sample Size	0	0	2	9	6	7	818	34	1	0	11	1	889	
Males														
Mean Length (mm)	325	356	358	522	571	399	565	602	-	392	568	615	522	
SE	-	-	5	22	8	3	2	10	-	6	6	-	3	
Range	325-325	356-356	307-418	420-605	546-597	340-467	430-647	549-640	-	322-428	517-595	615-615	307-647	
Sample Size	1	1	29	9	6	111	456	10	0	19	12	1	655	
All Fish														
Mean Length (mm)	325	356	361	524	567	400	551	580	574	392	560	602	534	
SE	-	-	5	12	6	3	1	4	-	6	4	13	1	
Range	325-325	356-356	307-432	420-605	534-597	340-467	430-647	515-640	574-574	322-428	517-595	590-615	307-647	
Sample Size	1	1	31	18	12	118	1,274	44	1	19	23	2	1,544	

Table 33. Estimated sex composition of Olga Lakes (Upper Station) late-run sockeye salmon escapement, 2002.

Week	Dates	Sample Size			Escapement					
		Females	Males	Total	Percent	Females	Males	Number	Females	Males
29	7/16-7/18	61	131	192	36.2	63.8	384	677	1,061	
30	7/19-7/25	125	155	280	44.2	55.8	1,798	2,268	4,066	
31	7/26-8/01	145	95	240	57.7	42.3	5,450	3,996	9,446	
32	8/02-8/08	147	93	240	61.1	38.9	16,151	10,295	26,446	
33	8/09-8/15	98	62	160	61.2	38.8	21,179	13,424	34,603	
34	8/16-8/22	146	94	240	60.7	39.3	18,351	11,894	30,245	
35	8/23-8/29	143	97	240	60.2	39.8	12,212	8,075	20,287	
36	8/30-9/05	150	90	240	62.1	37.9	9,803	5,979	15,782	
37	9/06-9/12	0	0	0	62.5	37.5	2,760	1,656	4,416	
Total		1,015	817	1,832	60.2	39.8	88,086	58,265	146,351	^a

^a Age composition estimates represent escapement from week 29-37. The total Upper Station late-run sockeye salmon escapement was 150,346.

Table 34. Estimated age composition of Frazer Lake sockeye salmon escapement by week, 2002.

Week	Sample Size	Ages												Total	
		1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3			
24 6/07-6/13	0	Percent	0.0	0.0	1.1	10.8	4.8	0.5	2.7	73.1	0.0	0.5	6.5	100.0	
		Numbers	0	0	0	5	2	0	1	31	0	0	3	43	
25 6/14-6/20	186	Percent	0.1	0.2	1.3	10.8	5.8	0.5	2.4	71.7	0.0	0.6	6.5	100.0	
		Numbers	18	37	266	2,221	1,197	96	501	14,696	0	133	1,322	20,486	
26 6/21-6/27	279	Percent	0.7	1.3	3.8	11.0	12.8	0.1	1.1	61.6	0.1	1.3	6.4	100.0	
		Numbers	113	193	585	1,681	1,963	16	169	9,456	8	192	978	15,355	
27 6/28-7/04	194	Percent	1.4	1.1	13.2	7.8	18.2	0.4	2.1	48.9	0.4	0.7	5.9	100.0	
		Numbers	226	184	2,211	1,307	3,035	63	352	8,172	63	112	979	16,704	
28 7/05-7/11	192	Percent	1.2	1.0	24.2	6.5	19.8	0.2	1.5	38.9	0.2	0.5	6.0	100.0	
		Numbers	73	63	1,467	398	1,204	10	92	2,358	10	31	365	6,069	
29 7/12-7/18	204	Percent	1.1	0.9	45.2	5.4	16.6	0.0	0.2	26.5	0.0	0.4	3.8	100.0	
		Numbers	79	59	3,094	369	1,136	0	16	1,813	0	24	263	6,853	
30 7/19-7/25	132	Percent	2.1	0.7	58.3	2.1	12.8	0.0	0.7	20.3	0.0	1.8	1.2	100.0	
		Numbers	186	58	5,161	187	1,135	0	66	1,800	0	156	103	8,852	
31 7/26-8/01	126	Percent	1.8	2.5	58.6	3.7	13.0	0.0	0.7	17.4	0.0	0.1	2.2	100.0	
		Numbers	140	195	4,519	284	1,003	0	51	1,346	0	8	166	7,712	
32 8/02-8/08	140	Percent	2.8	0.1	80.8	2.9	3.1	0.0	0.0	8.8	0.0	0.0	1.5	100.0	
		Numbers	53	1	1,508	54	59	0	0	165	0	0	27	1,867	
33 8/09-8/15	0	Percent	2.9	0.0	81.4	2.9	2.9	0.0	0.0	8.6	0.0	0.0	1.4	100.0	
		Numbers	39	0	1,120	39	39	0	0	118	0	0	20	1,376	
Total		Percent	1.1	0.9	23.4	7.7	12.6	0.2	1.5	46.8	0.1	0.8	5.0	100.0	
		Numbers	928	789	19,932	6,546	10,773	186	1,247	39,955	81	656	4,225	85,317	

Table 35. Length composition of Frazer Lake sockeye salmon escapement samples by age and sex, 2002.

	Ages												
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	Total	
Females													
Mean Length (mm)	-	499	558	570	360	512	562	551	-	512	563	552	
SE	-	12	3	13	10	3	1	3	-	-	4	1	
Range	-	465-555	495-609	508-618	350-370	425-593	337-649	541-556	-	512-512	474-610	337-649	
Sample Size	0	6	67	9	2	92	369	5	0	1	39	590	
Males													
Mean Length (mm)	340	477	578	587	336	519	581	603	368	-	587	442	
SE	7	18	6	17	1	4	2	23	11	-	7	4	
Range	293-405	407-539	530-667	510-645	280-531	333-596	505-660	547-660	358-379	-	506-686	280-686	
Sample Size	18	8	33	7	440	102	215	5	2	0	28	858	
All Fish													
Mean Length (mm)	340	487	565	577	336	515	569	577	368	512	573	487	
SE	7	11	3	10	1	3	1	14	11	-	4	3	
Range	293-405	407-555	495-667	508-645	280-531	333-596	337-660	541-660	358-379	512-512	474-686	280-686	
Sample Size	18	14	100	16	442	194	584	10	2	1	67	1,448	

Table 36. Estimated sex composition of Frazer Lake sockeye salmon escapement by week, 2002.

Week	Dates	Sample Size			Escapement				
		Females	Males	Total	Percent		Number		
					Females	Males	Females	Males	Total
24	6/07-6/13	0	0	0	55.0	45.0	23.65	19.35	43
25	6/14-6/20	132	108	240	55.2	44.8	11,315	9,171	20,486
26	6/21-6/27	182	138	320	56.4	43.6	8,662	6,693	15,355
27	6/28-7/04	130	110	240	53.5	46.5	8,941	7,763	16,704
28	7/05-7/11	105	135	240	46.9	53.1	2,846	3,223	6,069
29	7/12-7/18	87	153	240	35.4	64.6	2,429	4,424	6,853
30	7/19-7/25	35	125	160	24.1	75.9	2,134	6,718	8,852
31	7/26-8/01	50	110	160	27.7	72.3	2,132	5,580	7,712
32	8/02-8/08	18	142	160	11.7	88.3	219	1,648	1,867
33	8/09-8/15	0	0	0	11.3	88.8	155	1,221	1,376
Total		739	1,021	1,760	45.5	54.5	38,857	46,460	85,317

Table 37. Estimated age composition of Saltery Lake sockeye salmon escapement, 2002.

Week	Sample Size	Ages									Total	
		1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.2			
27 6/28-7/04	0	Percent	0.0	21.7	0.0	8.7	10.7	0.0	57.3	1.6	100.0	
		Numbers	0	3,048	0	1,219	1,496	0	8,036	222	14,021	
28 7/05-7/11	253	Percent	0.0	21.8	0.4	8.7	10.9	0.0	56.8	1.5	100.0	
		Numbers	0	489	8	196	245	0	1,277	33	2,247	
29 7/12-7/18	90	Percent	0.0	22.7	3.7	8.7	13.0	0.0	51.6	0.3	100.0	
		Numbers	0	496	80	191	285	0	1,126	6	2,184	
30 7/19-7/25	92	Percent	0.2	32.4	2.1	6.2	13.7	0.2	44.0	1.1	100.0	
		Numbers	14	2,328	153	447	981	14	3,160	78	7,175	
31 7/26-8/01	111	Percent	0.9	38.5	3.5	3.7	12.7	0.9	38.1	1.8	100.0	
		Numbers	62	2,752	251	265	905	62	2,720	127	7,144	
32 8/02-8/08	0	Percent	0.9	38.7	3.6	3.6	12.6	0.9	37.8	1.8	100.0	
		Numbers	15	666	62	62	217	15	650	31	1,719	
Total		Percent	0.3	28.4	1.6	6.9	12.0	0.3	49.2	1.4	100.0	
		Numbers	92	9,779	555	2,379	4,129	92	16,969	496	34,490 ^a	

^a Age composition estimates represent escapement from week 27-32. The total Saltery Lake sockeye salmon escapement was 36,336.

Table 38. Length composition of Saltery Lake sockeye salmon escapement samples by age and sex, 2002.

	Ages								
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.2	Total
Females									
Mean Length (mm)	-	504	568	660	-	504	570	498	546
SE	-	3	7	-	-	4	2	16	3
Range	-	445-580	472-606	660-660	-	440-555	497-622	450-518	440-660
Sample Size	0	65	21	1	0	32	145	4	268
Males									
Mean Length (mm)	300	538	608	-	335	529	605	537	567
SE	-	4	6	-	8	7	3	1	4
Range	300-300	432-600	566-643	-	310-360	430-597	490-680	536-540	300-680
Sample Size	1	77	16	0	7	29	120	3	253
All Fish									
Mean Length (mm)	300	522	585	660	335	516	586	515	556
SE	-	3	6	-	8	4	2	12	2
Range	300-300	432-600	472-643	660-660	310-360	430-597	490-680	450-540	300-680
Sample Size	1	142	37	1	7	61	265	7	521

Table 39. Estimated sex composition of Saltery Lake sockeye salmon escapement, 2002.

Week	Dates	Sample Size			Escapement				Total
		Females	Males	Total	Percent	Females	Males	Number	
27	6/28-7/04	0	0	0	49.2	50.8	6,896	7,125	14,021
28	7/05-7/11	151	156	307	49.7	50.3	1,116	1,131	2,247
29	7/12-7/18	63	51	114	54.0	46.0	1,179	1,005	2,184
30	7/19-7/25	49	57	106	49.4	50.6	3,546	3,629	7,175
31	7/26-8/01	70	58	128	54.4	45.6	3,886	3,258	7,144
32	8/02-8/08	0	0	0	54.7	45.3	940	779	1,719
Total		333	322	655	50.9	49.1	17,564	16,926	34,490 ^a

^a Age composition estimates represent escapement from week 27-32. The total Saltery Lake sockeye salmon escapement was 36,336.

Table 40. Estimated age composition of Akalura Lake sockeye salmon escapement, 2002.

Week	Sample Size		Ages				Total	
			1.2	2.2	2.3	3.2		
32 8/02-8/08	21	Percent	0.0	28.6	71.4	0.0	100.0	
		Numbers	0	93	234	0	327	
33 8/09-8/15	22	Percent	3.4	55.1	21.0	20.6	100.0	
		Numbers	6	100	38	37	182	
34 8/16-8/22	6	Percent	0.7	52.4	27.1	19.8	100.0	
		Numbers	28	2,114	1,091	798	4,032	
35 8/23-8/29	11	Percent	0.0	62.4	8.5	29.2	100.0	
		Numbers	0	186	25	87	299	
36 8/30-9/05	1	Percent	0.0	98.8	0.2	1.0	100.0	
		Numbers	0	219	1	2	222	
Total		Percent	0.7	53.6	27.4	18.3	100.0	
		Numbers	34	2,714	1,389	925	5,061 ^a	

^a Age composition estimates represent escapement from week 32-36. The total Akalura Lake sockeye salmon escapement was 7,635.

Table 41. Length composition of Akalura Lake sockeye salmon escapement samples by age and sex, 2002.

	Ages				
	1.2	2.2	2.3	3.2	Total
Females					
Mean Length (mm)	-	520	558	522	530
SE	-	9	11	15	7
Range	-	480-584	515-621	474-580	474-621
Sample Size	0	16	8	7	31
Males					
Mean Length (mm)	511	568	592	502	566
SE	-	5	11	7	7
Range	511-511	540-613	520-660	490-523	490-660
Sample Size	1	14	11	4	30
All Fish					
Mean Length (mm)	511	543	578	514	548
SE	-	7	9	10	5
Range	511-511	480-613	515-660	474-580	474-660
Sample Size	1	30	19	11	61

Table 42. Estimated sex composition of Akalura Lake sockeye salmon escapement, 2002.

Week	Dates	Sample Size			Escapement					
		Females	Males	Total	Percent	Females	Males	Females	Males	Total
32	8/02-8/08	13	20	33	39.4	60.6	129	198	327	
33	8/09-8/15	14	13	27	48.9	51.1	89	93	182	
34	8/16-8/22	7	7	14	51.6	48.4	2,079	1,953	4,032	
35	8/23-8/29	8	4	12	71.9	28.1	215	84	299	
36	8/30-9/05	1	0	1	99.1	0.9	220	2	222	
Total		43	44	87	54.0	46.0	2,734	2,327	5,061	^a

^a Age composition estimates represent escapement from week 32-36. The total Akalura Lake sockeye salmon escapement was 7,635.

Table 43. Kodiak Management Area commercial salmon harvest by species and year, 1970 through 2002.

Year	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
1970	1,089	917,047	66,424	12,036,598	919,972	13,941,130
1971	920	478,479	22,844	4,334,492	1,541,444	6,378,179
1972	1,300	222,800	16,588	2,478,737	1,163,772	3,883,197
1973	800	167,341	3,573	511,708	317,921	1,001,343
1974	545	418,761	13,631	2,647,196	249,294	3,329,427
1975	101	136,418	23,659	2,942,801	84,431	3,187,410
1976	700	641,500	23,700	11,078,000	740,500	12,484,400
1977	600	623,500	27,900	6,252,400	1,072,300	7,976,700
1978	3,228	1,071,782	48,795	15,004,065	814,345	16,942,215
1979	1,907	630,756	140,629	11,285,809	358,336	12,417,437
1980	600	651,000	140,000	17,291,000	1,076,000	19,158,600
1981	1,000	1,289,000	122,000	10,337,000	1,345,000	13,094,000
1982	1,000	1,205,000	344,000	8,076,000	1,266,000	10,892,000
1983	4,000	1,232,000	158,000	4,603,000	1,085,000	7,082,000
1984	5,000	1,951,000	230,000	10,884,000	649,000	13,719,000
1985	5,000	1,843,000	284,000	7,335,000	431,000	9,898,000
1986	4,000	3,155,000	168,000	11,504,000	1,126,000	15,957,000
1987	5,000	1,793,000	192,000	5,073,000	682,000	7,745,000
1988	22,000	2,696,000	300,000	14,556,000	1,426,000	19,000,000
1989 ^a	4,851	2,628,565	141,433	22,648,511	835,734	26,259,094
1990	18,806	5,248,404	293,819	5,983,812	577,743	12,122,584
1991	22,233	5,704,041	324,860	16,642,804	1,029,070	23,723,008
1992	24,299	4,167,705	280,084	3,310,501	679,484	8,462,073
1993	42,199	4,377,771	313,467	34,019,420	588,331	39,341,188
1994	22,572	2,876,645	296,098	8,162,564	738,737	12,096,616
1995	18,704	4,485,321	307,729	42,832,437	1,522,705	49,166,896
1996	13,071	4,970,390	201,836	3,486,930	543,751	9,215,978
1997	18,728	2,505,785	381,008	11,035,128	520,329	14,460,978
1998	17,341	3,623,686	425,143	22,062,465	316,115	26,444,750
1999	18,299	4,652,961	296,371	11,898,382	913,867	17,779,880
2000	12,293	2,906,391	333,002	9,927,397	1,194,448	14,373,531
2001	23,827	2,659,267	407,978	19,567,163	1,053,730	23,711,965
2002	19,263	1,824,848	496,073	18,327,818	650,144	21,318,146
Average						
1997-2001	18,098	3,269,618	368,700	14,898,107	799,698	19,354,221
1992-2001	21,133	3,722,592	324,272	16,630,239	807,150	21,505,386

^a Catch numbers represent the projected harvest if the Exxon Valdez oil spill had not eliminated a major portion of the commercial fishery.

Table 44. Commercial salmon catch numbers and weight by species, district, and section, Kodiak Management Area, 2002.

District	Section	Species														
		Chinook			Sockeye			Coho			Pink			Chum		
		no.	lbs	mean	no.	lbs	mean	no.	lbs	mean	no.	lbs	mean	no.	lbs	mean
Afognak District																
S.W.AFOGNAK & RASPBERRY STRAITS SECTIONS (251-10,12,20)		6,640	59,787	9.0	104,446	548,350	5.3	8,994	73,274	8.1	325,203	1,157,737	3.6	28,049	224,478	8.0
N.W. AFOGNAK SECTION (251-30,40,41,50)		212	1,998	9.4	37,966	173,920	4.6	198	1,595	8.1	8,380	30,177	3.6	1,747	10,577	6.1
SHUYAK ISLAND SECTION (251-60,70,81)		0	0	N/A	102	662	6.5	5,662	50,255	8.9	1,829	5,780	3.2	0	0	N/A
PERENOSA BAY SECTION (251-82,83,84)		78	955	12.2	15,132	68,442	4.5	5	35	7.0	20	43	2.2	1,469	9,897	6.7
PAULS BAY SECTION (251-85)		4	65	16.3	5,905	26,119	4.4	20,620	154,700	7.5	10,588	36,041	3.4	50	335	6.7
N.E.AFOGNAK SECTION (251-90,252-10,20)		85	834	9.8	2,268	14,280	6.3	2,567	21,448	8.4	30,984	114,755	3.7	2,758	20,653	7.5
IZHUT BAY SECTION (252-30)		183	1,456	7.9563	4,703	26,243	5.6	70,373	565,224	8.0	1,903,805	6,996,151	3.7	8,116	55,065	6.8
DUCK BAY SECTION (252-31)		231	2,665	11.5	23,175	130,886	5.6	108,461	809,324	7.5	3,482,035	12,856,414	3.7	44,168	284,247	6.4
KITOI BAY SECTION (252-32)		21	232	11.0	1,106	6,315	5.7	30,425	219,558	7.2	1,310,934	4,714,478	3.6	36,440	248,562	6.8
S.E.AFOGNAK (252-33,34,35)		1	6	6.0	944	5,386	5.7	3,518	28,985	8.2	95,598	348,551	3.6	839	6,353	7.6
Subtotal		7,455	67,998	9.1	195,747	1,000,603	5.1	250,823	1,924,398	7.7	7,169,376	26,260,127	3.7	123,636	860,167	7.0
Northwest Kodiak District																
CENTRAL, TERROR BAY, INNER UGANIK, SPIRIDON, ZACHAR, & UYAK BAY SECTIONS COMBINED (253-11,12,13,14,31-35)		6,215	59,771	9.6	999,458	5,740,470	5.7	113,387	922,662	8.1	8,046,744	29,882,703	3.7	148,458	1,153,604	7.8
NORTH CAPE, ANTON LARSEN, SHERATIN, & KIZHUYAK SECTIONS COMBINED (259-35,36,37,38,39)		954	7,890	8.3	64,770	351,082	5.4	23,187	174,165	7.5	293,935	1,069,417	3.6	55,845	422,887	7.6
Subtotal		7,169	67,661	9.4	1,064,228	6,091,552	5.7	136,574	1,096,827	8.0	8,340,679	30,952,120	3.7	204,303	1,576,491	7.7

-Continued-

Table 44. (page 2 of 3)

District	Section	Species														
		Chinook			Sockeye			Coho			Pink			Chum		
		no.	lbs	mean		no.	lbs	mean		no.	lbs	mean		no.	lbs	mean
Southwest Kodiak District																
INNER KARLUK SECTION (255-10)		568	6,554	11.5	61,280	303,634	5.0	233	1,918	8.2	117,587	429,750	3.7	5,448	41,920	7.7
OUTER KARLUK SECTION (255-20)		871	10,017	11.5	127,222	678,860	5.3	13,399	110,542	8.3	636,874	2,327,373	3.7	7,756	62,587	8.1
STURGEON SECTION (256-40)		22	405	18.4	17,725	98,570	5.6	1,508	12,567	8.3	246,060	883,029	3.6	10,232	39,673	3.9
INNER & OUTER AYAKULIK SECTIONS (256-10,15,20)		71	805	11.3	4,328	22,689	5.2	5,998	48,848	8.1	369	1,220	3.3	552	4,127	7.5
Subtotal		1,532	17,781	11.6	210,555	1,103,753	5.2	21,138	173,875	8.2	1,000,890	3,641,372	3.6	23,988	148,307	6.2
Alitak Bay District																
HUMPY/DEADMAN SECTION (257-50,60,70)		13	401	30.8	14,575	81,642	5.6	1,060	7,942	7.5	1,078,120	4,010,153	3.7	10,164	86,110	8.5
Subtotal		13	401	30.8	14,575	81,642	5.6	1,060	7,942	7.5	1,078,120	4,010,153	3.7	10,164	86,110	8.5
Eastside Kodiak District																
SEVEN RIVERS SECTION (258-70,80,83,85,90)		172	2,256	13.1	16,386	93,547	5.7	18,365	123,450	6.7	71,491	267,211	3.7	8,353	64,714	7.7
TWO-HEADED SECTION (258-54,55,60)		95	1,167	12.3	25,492	145,960	5.7	7,599	53,142	7.0	42,191	147,534	3.5	15,545	120,967	7.8
SITKALIDAK SECTION (258-10,20,30,40,51,52,53)		759	9,088	12.0	47,397	279,789	5.9	34,479	245,380	7.1	257,772	923,085	3.6	114,844	985,560	8.6
INNER & OUTER UGAK (259-40,41,42)		472	6,099	12.9	32,494	191,144	5.9	236	1,603	6.8	6,588	21,900	3.3	43,115	323,569	7.5
Subtotal		1,498	18,610	12.4	121,769	710,440	5.8	60,679	423,575	7.0	378,042	1,359,730	3.6	181,857	1,494,810	8.2

-Continued-

Table 44. (page 3 of 3)

District	Section	Species														
		Chinook			Sockeye			Coho			Pink			Chum		
		no.	lbs	mean	no.	lbs	mean	no.	lbs	mean	no.	lbs	mean	no.	lbs	mean
Northeast Kodiak District																
OUTER CHINIAK BAY SECTION (259-21,25)		455	4,588	10.1	12,865	79,635	6.2	5,723	39,643	6.9	37,825	126,776	3.4	16,519	128,020	7.7
Subtotal		455	4,588	10.1	12,865	79,635	6.2	5,723	39,643	6.9	37,825	126,776	3.4	16,519	128,020	7.7
Mainland District																
BIG RIVER SECTION (262-10,15)		0	0	N/A	0	0	N/A	617	9,252	15.0	0	0	N/A	4	33	8.3
HALLO BAY SECTION (262-20)		0	0	N/A	0	0	N/A	179	1,615	9.0	0	0	N/A	14	127	9.1
OUTER KUKAK BAY SECTION (262-25,30)		5	65	13.0	2,869	16,244	5.7	4,630	40,751	8.8	21,774	75,229	3.5	41,965	378,439	9.0
INNER KUKAK BAY SECTION (262-27)		1	20	20.0	0	0	N/A	256	2,554	10.0	104	345	3.3	5,381	53,811	10.0
DAKAVAK (262-35,40,45,50,55)		283	3,731	13.2	29,490	187,292	6.4	12,710	93,518	7.4	239,634	859,269	3.6	15,113	126,118	8.3
KATMAI (262-60)		197	2,005	10.2	9,343	60,071	6.4	180	1,343	7.5	19,240	69,429	3.6	5,461	37,870	6.9
ALINCHAK (262-65,70)		99	1,081	10.9	11,754	73,124	6.2	139	1,319	9.5	14,267	47,906	3.4	4,433	34,158	7.7
CAPE IGVAK (262-75,80,90,95)		556	8,155	14.7	151,653	909,868	6.0	1,365	10,920	8.0	27,867	104,486	3.7	17,306	137,679	8.0
Subtotal		1,141	15,057	13.2	205,109	1,246,599	6.1	20,076	161,272	8.0	322,886	1,156,664	3.6	89,677	768,235	8.6
GRAND TOTAL		19,263	192,096	10.0	1,824,848	10,314,224	5.7	496,073	3,827,532	7.7	18,327,818	67,506,942	3.7	650,144	5,062,140	7.8

Table 45. Estimated age composition of commercial sockeye salmon catches by sample area, Kodiak Management Area, 2002.

^a Age composition estimates are not necessarily representative of the entire season's harvest for that commercial fishing section (see

District	Catch Area	Dates	Sample Size	Ages																	
				0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	4.2	3.4	4.3
Afognak District																					
Foul Bay THA	6/7-7/11	902	%	0.1	6.9		66.1	0.2		26.0	0.7										
			no.	35	2,210		21,306	74		8,377	212										
Waterfall THA	6/7-7/11	519	%		5.1		65.7			22.2	7.0										
			no.		679		8,806			2,982	943										
Malina Bay THA	6/7-9/12	146	%				52.1	1.4		29.5	9.6			6.8	0.7						
			no.				2,334	61		1,321	430			307	31						
Southwest Afognak	7/12-7/18	599	%	0.5	0.5	0.2	22.8	2.8		16.6	39.8	0.8		8.7	5.3		1.5	0.2	0.2		
			no.	346	346	173	15,960	1,938		11,633	27,870	588		6,093	3,703		1,073	173	138		
NW Kodiak District																					
Uganik-Viekoda Bays	6/7-9/12	5,131	%	0.1	0.0	0.3	25.1	0.6	0.0	23.2	32.0	0.2	0.3	9.5	7.1	0.2	1.3	0.1	0.0		
			no.	219	179	1,072	93,951	2,394	127	86,932	120,006	650	1,092	35,463	26,620	897	4,884		264	131	
Uyak Bay	6/7-9/12	3,764	%	0.1	0.1	0.2	9.7	2.5		9.8	44.2	1.6	0.1	15.0	13.0	0.4	3.1	0.2	0.0	0.0	
			no.	423	256	758	41,537	10,757		41,904	188,345	6,957	406	63,757	55,322	1,639	13,083	884	102	108	
Spiridon THA (Telrod Cove)	6/28-9/5	1,572	%		0.2	0.0	36.1	2.0		35.8	24.7		0.1	1.0	0.1						
			no.		466	59	71,962	4,077		71,479	49,330		139	1,909	119						
SW Kodiak District																					
Inner and Outer Karluk Section	6/7-7/11	1,996	%	0.2	0.1	0.4		6.8	4.4		5.5	46.3	1.4	0.0	18.9	12.3	0.3	3.1	0.1	0.1	
			no.	391	246	789		12,917	8,321		10,292	87,360	2,559	51	35,717	23,163	544	5,891	131	195	
Sturgeon Section	8/16-8/22	330	%				1.5	0.3		1.8	51.2	0.3		21.5	17.0	0.3	5.5	0.3	0.3		
			no.				228	46		273	7,698	46		3,234	2,551	46	820	46	46		
Inner and Outer Ayakuli	6/7-7/4	150	%	2.0		0.7		8.7	8.0		20.7	30.0	0.7		19.3	2.0		8.0			
			no.	86		29		374	345		891	1,294	29		834	86		345			
Alitak Bay District																					
Humpy-Deadman Section	6/7-8/29	189	%		0.4			8.9	1.0		28.1	43.6		1.4	13.3	1.0		2.4			
			no.		14			342	40		1,084	1,682		52	512	40		92			
Total			%	0.0	0.1	0.4	0.2	20.2	2.1	0.0	17.8	36.4	0.8	0.1	11.1	8.4	0.2	2.0	0.1	0.0	
			no.	15,298	477	1,283	4,954	2,063	269,716	28,051	127	237,168	485,170	10,828	1,739	147,827	111,634	3,126	26,187	1,234	700

individual section tables).

Table 46. Estimated age composition of Foul Bay terminal harvest area (251-41) sockeye salmon catch, 2002.

Week	Sample Size		Ages						Total	
			0.2	1.1	1.2	2.1	1.3	2.2		
25 6/14-6/20	800	Percent	0.1	5.6	65.4	0.1	28.0	0.7	100.0	
		Numbers	35	1,567	18,196	35	7,790	209	27,831	
26 6/21-6/27	102	Percent	0.0	14.7	70.9	0.9	13.4	0.1	100.0	
		Numbers	1	643	3,110	39	587	3	4,384	
Total		Percent	0.1	6.9	66.1	0.2	26.0	0.7	100.0	
		Numbers	35	2,210	21,306	74	8,377	212	32,215	

^a Age composition estimates represent harvest from weeks 25-26. The total Foul Bay THA harvest was 33,444 sockeye salmon.

Table 47. Length composition of Foul Bay terminal harvest area (251-41) sockeye salmon catch samples by age and sex, 2002.

	Ages						
	0.2	1.1	1.2	1.3	2.1	2.2	Total
Females							
Mean Length (mm)	-	-	481	527	-	522	496
SE	-	-	3	4	-	-	3
Range	-	-	433-554	484-580	-	522-522	433-580
Sample Size	0	0	75	34	0	1	110
Males							
Mean Length (mm)	-	-	502	552	-	513	516
SE	-	-	2	3	-	13	3
Range	-	-	436-572	509-598	-	500-526	436-598
Sample Size	0	0	106	42	0	2	150
All Fish							
Mean Length (mm)	546	342	481	537	359	503	485
SE	-	3	1	2	29	10	2
Range	546-546	305-374	311-572	458-598	330-388	466-526	305-598
Sample Size	1	36	400	132	2	6	577

Table 48. Estimated sex composition of Foul Bay terminal harvest area (251-41) sockeye salmon catch, 2002.

Week	Dates	Sample Size			Escapement						
		Females	Males	Total	Percent	Females	Males	Number	Females	Males	Total
25	6/14-6/20	112	169	281	39.9	60.1		11,094	16,737	27,831	
26	6/21-6/27	11	13	24	45.2	54.8		1,983	2,401	4,384	
Total		123	182	305	40.6	59.4		13,076	19,139	32,215 ^a	

^a Age composition estimates represent harvest from week 25-26. The total Foul Bay THA harvest was 33,444 sockeye salmon.

Table 49. Estimated age composition of Waterfall Bay terminal harvest area (251-84) sockeye salmon catch by week, 2002.

Week	Sample Size	Ages				Total	
		1.1	1.2	1.3	2.2		
25 6/14-6/20	349	Percent	4.4	65.4	22.7	7.5	100.0
		Numbers	508	7,582	2,627	867	11,584
26 6/21-6/27	170	Percent	9.4	67.1	19.4	4.1	100.0
		Numbers	172	1,224	354	75	1,826
Total	519	Percent	5.1	65.7	22.2	7.0	100.0
		Numbers	679	8,806	2,982	943	13,410

Table 50. Length composition of Waterfall Bay terminal harvest area (251-84) sockeye salmon catch samples by age and sex, 2002.

	Ages				Total
	1.1	1.2	1.3	2.2	
Females					
Mean Length (mm)	-	466	521	481	480
SE	-	2	4	7	2
Range	-	325-540	420-580	430-595	325-595
Sample Size	0	160	57	21	238
Males					
Mean Length (mm)	338	480	536	498	477
SE	3	2	4	6	4
Range	305-390	321-550	460-625	460-540	305-625
Sample Size	30	181	56	13	280
All Fish					
Mean Length (mm)	338	473	528	488	478
SE	3	2	3	5	2
Range	305-390	321-550	420-625	430-595	305-625
Sample Size	30	342	113	34	519

Table 51. Estimated sex composition of Waterfall Bay terminal harvest area (251-84) sockeye salmon catch by week, 2002.

Week	Dates	Sample Size			Escapement					
					Percent		Number			
		Females	Males	Total	Females	Males	Females	Males	Total	
25	6/14-6/20	199	200	399	49.2	50.8	5,695	5,889	11,584	
26	6/21-6/27	79	121	200	39.5	60.5	721	1,105	1,826	
Total		278	321	599	47.9	52.1	6,417	6,993	13,410	

Table 52. Estimated age composition of Malina Bay THA (251-12) commercial sockeye salmon catch, 2002.

Week	Sample Size	Ages							Total
		1.2	2.1	1.3	2.2	2.3	3.2		
24-25 6/07-6/20	146	Percent	52.1	1.4	29.5	9.6	6.8	0.7	100.0
		Numbers	2,334	61	1,321	430	307	31	4,484
Total	146	Percent	52.1	1.4	29.5	9.6	6.8	0.7	100
		Numbers	2,334	61	1,321	430	307	31	4,484 ^a

^a Age composition estimates represent harvest from week 24-25. The total Malina Bay THA sockeye salmon harvest was 4,057 fish. Total harvest includes 700 personal use fish harvested on 6/9/02 with commercial gear.

Table 53. Estimated age composition of Southwest Afognak Section (251-10, 20) commercial sockeye salmon catch, 2002.

Week	Size	Sample		Ages												Total ^a
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	2.3	3.2	3.3	4.2	3.4		
25 6/14-6/20	324	Percent	0.1	1.3	0.0	21.3	6.3	13.9	33.8	1.7	7.4	10.0	3.5	0.0	0.5	100.0
		Numbers	22	308	11	4,905	1,439	3,200	7,779	381	1,703	2,295	812	11	123	22,988
26 6/21-6/27	0	Percent	0.3	0.9	0.1	22.0	4.6	15.2	36.6	1.3	8.0	7.8	2.6	0.1	0.4	100.0
		Numbers	9	31	5	731	154	504	1,216	42	266	259	86	5	13	3,321
27 6/28-7/04	275	Percent	0.7	0.0	0.4	23.6	0.8	18.1	43.2	0.4	9.4	2.6	0.4	0.4	0.0	100.0
		Numbers	315	7	157	10,324	345	7,929	18,876	165	4,124	1,150	175	157	3	43,727
Total	599	Percent	0.5	0.5	0.2	22.8	2.8	16.6	39.8	0.8	8.7	5.3	1.5	0.2	0.2	100.0
		Numbers	346	346	173	15,960	1,938	11,633	27,870	588	6,093	3,703	1,073	173	138	70,036

^a Age composition estimates represent harvest from week 25-27. The total Southwest Afognak Section harvest was 100,389 sockeye salmon.

Table 54. Estimated age composition of Uganik-Viekoda Bays (253-11, 12, 13, 14, 31, 32, 33, 35) commercial sockeye salmon catch, 2002.

Week	Sample Size	Ages															Total	
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4		
24 6/07-6/13	436 Percent Numbers	0.2	0.0	0.2	31.3	0.0	0.0	26.1	16.8	0.0	0.2	14.7	7.8	0.5	2.0	0.0	100.0	
		6	0	6	711	0	0	593	382	0	6	333	177	11	46	0	2,270	
25 6/14-6/20	329 Percent Numbers	0.4	0.0	0.2	23.6	0.1	0.0	33.9	20.7	0.1	0.3	13.6	4.3	0.4	2.2	0.0	100.0	
		123	0	43	6,605	40	0	9,489	5,799	40	83	3,808	1,210	126	616	0	27,981	
26 6/21-6/27	348 Percent Numbers	0.4	0.0	0.2	22.5	0.2	0.0	33.4	23.4	0.2	0.2	14.8	2.5	0.3	2.0	0.0	100.0	
		86	0	40	4,958	43	0	7,369	5,166	43	43	3,256	552	63	446	0	22,066	
27 6/28-7/04	355 Percent Numbers	0.0	0.0	0.6	33.5	0.0	0.0	31.4	22.2	0.0	0.1	9.7	1.5	0.3	0.7	0.1	100.0	
		5	0	431	23,170	3	0	21,688	15,323	3	93	6,678	1,027	241	468	45	69,175	
28 7/05-7/11	349 Percent Numbers	0.0	0.0	0.8	28.5	0.0	0.0	37.9	19.9	0.0	0.5	9.3	2.3	0.5	0.1	0.2	100.0	
		0	0	305	11,011	0	0	14,647	7,672	0	188	3,582	895	199	48	92	38,639	
29 7/12-7/18	333 Percent Numbers	0.0	0.0	0.1	37.1	0.2	0.0	27.2	29.4	0.0	0.3	4.4	0.9	0.0	0.3	0.0	100.0	
		0	0	36	17,499	109	0	12,843	13,880	0	146	2,094	402	0	158	0	47,169	
30 7/19-7/25	541 Percent Numbers	0.0	0.0	0.5	31.5	1.4	0.0	25.0	27.1	0.0	0.4	9.6	3.5	0.0	0.9	0.0	100.0	
		0	14	210	14,353	645	14	11,397	12,344	14	176	4,380	1,598	14	404	14	45,578	
31 7/26-8/01	356 Percent Numbers	0.0	0.2	0.0	18.6	0.4	0.2	11.1	39.9	0.2	0.5	12.5	12.6	0.3	3.2	0.2	100.0	
		0	104	0	9,192	183	104	5,484	19,690	104	248	6,151	6,203	144	1,553	104	49,305	
32 8/02-8/08	309 Percent Numbers	0.0	0.0	0.0	13.5	0.7	0.0	9.0	50.5	0.0	0.3	11.5	11.9	0.3	1.9	0.0	100.0	
		0	9	0	3,208	156	9	2,125	11,953	9	79	2,733	2,822	71	446	9	23,690	
33 8/09-8/15	62 Percent Numbers	0.0	0.0	0.0	8.6	1.3	0.0	4.1	57.2	0.0	0.1	6.1	20.8	0.1	1.6	0.0	100.0	
		0	0	0	2,337	350	0	1,110	15,509	0	29	1,665	5,637	29	438	0	27,133	
34 8/16-8/22	353 Percent Numbers	0.0	0.4	0.0	5.6	5.5	0.0	0.7	54.9	2.1	0.0	3.4	26.4	0.0	1.0	0.0	100.0	
		0	47	0	745	726	0	96	7,246	279	0	449	3,491	0	127	0	13,207	
35 8/23-8/29	360 Percent Numbers	0.0	0.1	0.0	1.9	1.6	0.0	1.0	58.2	1.8	0.0	3.8	30.1	0.0	1.5	0.0	100.0	
		0	5	0	163	139	0	89	5,041	158	0	333	2,607	0	134	0	8,668	
Total	4,131	Percent	0.1	0.0	0.3	25.1	0.6	0.0	23.2	32.0	0.2	0.3	9.5	7.1	0.2	1.3	0.1	100.0
		Numbers	219	179	1,072	93,951	2,394	127	86,932	120,006	650	1,092	35,463	26,620	897	4,884	264	374,881

Table 55. Estimated age composition of Uyak Bay (254-10, 20, 30, 40) commercial sockeye salmon catch, 2002.

Week	Sample Size	Ages																			Total
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	4.2	3.4	4.3				
24 6/07-6/13	438	Percent	0.0	0.2	0.3	5.2	0.0	8.0	32.5	0.0	0.0	32.0	12.3	1.0	7.9	0.6	0.0	0.0	100.0		
		Numbers	19	84	140	2,213	0	3,418	13,877	0	0	13,673	5,234	411	3,365	271	0	19	42,723		
25 6/14-6/20	315	Percent	0.2	0.1	0.7	8.8	0.0	13.0	31.7	0.0	0.0	27.3	9.9	1.2	6.4	0.4	0.0	0.2	100.0		
		Numbers	75	21	245	2,885	0	4,260	10,421	0	3	8,977	3,257	383	2,116	136	0	75	32,853		
26 6/21-6/27	234	Percent	0.1	0.0	0.3	10.3	0.0	17.5	28.4	0.0	0.6	28.0	5.5	0.6	8.5	0.1	0.0	0.1	100.0		
		Numbers	15	0	48	1,882	0	3,220	5,208	0	109	5,143	1,015	115	1,561	15	5	15	18,349		
27 6/28-7/04	337	Percent	0.0	0.0	0.3	22.2	0.0	25.3	29.9	0.0	0.3	15.9	2.2	0.3	3.3	0.0	0.2	0.0	100.0		
		Numbers	0	0	90	7,313	0	8,339	9,881	0	114	5,258	724	102	1,104	0	81	0	33,004		
28 7/05-7/11	335	Percent	0.0	0.0	0.3	25.3	0.0	34.8	26.1	0.0	0.3	10.7	1.2	0.3	1.0	0.0	0.1	0.0	100.0		
		Numbers	0	0	67	5,679	0	7,827	5,860	0	67	2,410	268	67	217	0	17	0	22,477		
29 7/12-7/18	330	Percent	0.3	0.0	0.5	20.2	0.6	29.6	33.4	0.1	0.8	9.2	3.1	0.5	1.8	0.0	0.0	0.0	100.0		
		Numbers	37	0	76	2,940	84	4,312	4,876	10	113	1,346	452	76	262	0	0	0	14,583		
30 7/19-7/25	346	Percent	0.1	0.0	0.1	28.0	0.4	19.3	37.4	0.4	0.0	9.0	3.9	0.1	1.4	0.1	0.0	0.0	100.0		
		Numbers	24	0	24	8,911	133	6,146	11,907	133	0	2,860	1,239	24	437	24	0	0	31,863		
31 7/26-8/01	364	Percent	0.2	0.1	0.2	5.5	0.7	3.5	45.5	0.7	0.0	25.6	13.6	0.3	4.0	0.2	0.0	0.0	100.0		
		Numbers	56	20	56	1,517	202	960	12,543	182	0	7,042	3,747	77	1,097	56	0	0	27,557		
32 8/02-8/08	347	Percent	0.0	0.2	0.0	6.0	2.6	3.4	53.8	2.3	0.0	15.5	14.3	0.3	1.5	0.0	0.0	0.0	100.0		
		Numbers	12	122	12	3,606	1,571	2,083	32,464	1,410	0	9,375	8,629	172	928	12	0	0	60,395		
33 8/09-8/15	356	Percent	0.0	0.0	0.0	4.6	3.6	1.6	57.8	2.7	0.0	7.5	20.3	0.2	1.6	0.1	0.0	0.0	100.0		
		Numbers	22	9	0	2,716	2,121	933	34,227	1,580	0	4,466	12,001	144	936	44	0	0	59,197		
34 8/16-8/22	0	Percent	0.2	0.0	0.0	2.8	6.9	0.7	56.9	4.0	0.0	4.6	22.1	0.1	1.4	0.3	0.0	0.0	100.0		
		Numbers	88	0	0	1,553	3,865	400	31,686	2,210	0	2,572	12,299	67	753	176	0	0	55,668		
35 8/23-8/29	362	Percent	0.3	0.0	0.0	1.2	10.1	0.0	55.8	5.2	0.0	2.3	23.4	0.0	1.1	0.5	0.0	0.0	100.0		
		Numbers	75	0	0	324	2,781	8	15,396	1,432	0	637	6,457	1	307	150	0	0	27,568		
Total		3,764	Percent	0.1	0.1	0.2	9.7	2.5	9.8	44.2	1.6	0.1	15.0	13.0	0.4	3.1	0.2	0.0	0.0	100.0	
			Numbers	423	256	758	41,537	10,757	41,904	188,345	6,957	406	63,757	55,322	1,639	13,083	884	102	108	426,237	

Table 56. Age composition of Hook Point sockeye salmon catch samples by day, 2002.

Period		Ages					Total
		1.2	1.3	2.2	2.3	3.2	
7/8/02	Numbers	8	19	10	1	0	38
	Percent	21.0	50.0	26.0	3.0	0.0	
7/30/02	Numbers	8	10	32	2	0	52
	Percent	15.0	19.0	62.0	4.0	0.0	
8/6/02	Numbers	0	1	6	4	1	12
	Percent	0.0	8.0	50.0	33.0	8.0	
Total	Numbers	16	30	48	7	1	102
	Percent	16.0	29.0	47.0	7.0	1.0	

Table 57. Length composition of Hook Point sockeye salmon samples by age and sex, 2002.

	Ages					Total
	1.2	1.3	2.2	2.3	3.2	
Females						
Mean Length	543	576	543	695	0	558
SE	9	6	5	-	-	5
Range	505-580	505-612	502-585	695-695	0-0	502-695
Sample Size	8	17	20	1	0	46
Males						
Mean Length	539	601	554	598	544	567
SE	7	11	5	7	-	5
Range	514-566	510-638	514-607	572-622	544-544	510-638
Sample Size	8	13	28	6	1	56
All Fish						
Mean Length	541	587	549	612	544	563
SE	6	6	4	15	-	4
Range	505-580	505-638	502-607	572-695	544-544	502-695
Sample Size	16	30	48	7	1	102

Table 58. Estimated age composition of Spiridon Lake (Telrod Cove) sockeye salmon terminal harvest by week, 2002.

Week	Sample Size	Ages										Total
		1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2		
26 6/21-6/27	0	Percent	0.0	0.0	44.7	0.0	46.1	6.6	0.0	2.6	0.0	100.0
		Numbers	0	0	4,566	0	4,701	672	0	269	0	10,207
27 6/28-7/04	76	Percent	0.0	0.0	44.9	0.1	45.5	7.0	0.0	2.5	0.0	100.0
		Numbers	5	0	16,528	32	16,762	2,581	0	933	0	36,842
28 7/05-7/11	296	Percent	0.2	0.0	44.7	2.2	34.9	17.5	0.0	0.5	0.0	100.0
		Numbers	69	0	12,808	634	9,989	5,002	0	158	0	28,659
29 7/12-7/18	244	Percent	0.1	0.0	35.1	3.9	34.1	26.7	0.0	0.1	0.0	100.0
		Numbers	63	0	19,749	2,167	19,168	14,989	8	46	0	56,190
30 7/19-7/25	420	Percent	0.5	0.0	28.5	2.3	33.7	34.4	0.2	0.3	0.0	100.0
		Numbers	187	8	9,809	775	11,587	11,806	70	108	15	34,365
31 7/26-8/01	359	Percent	0.3	0.2	23.2	1.4	32.2	40.6	0.3	1.4	0.4	100.0
		Numbers	59	50	5,322	323	7,392	9,315	58	328	99	22,946
32 8/02-8/08	138	Percent	1.6	0.1	35.8	2.9	16.5	41.6	0.1	1.4	0.1	100.0
		Numbers	62	2	1,361	111	628	1,581	2	54	4	3,804
33 8/09-8/15	39	Percent	0.4	0.0	28.2	0.6	19.0	51.6	0.0	0.2	0.0	100.0
		Numbers	21	0	1,622	35	1,093	2,968	0	14	0	5,754
34 8/16-8/22	0	Percent	0.0	0.0	25.6	0.0	20.5	53.8	0.0	0.0	0.0	100.0
		Numbers	0	0	198	0	158	416	0	0	0	772
Total	1,572	Percent	0.2	0.0	36.1	2.0	35.8	24.7	0.1	1.0	0.1	100.0
		Numbers	466	59	71,962	4,077	71,479	49,330	139	1,909	119	199,539

Table 59. Length composition of Spiridon Lake (Telrod Cove) sockeye salmon terminal harvest samples by age and sex, 2002.

	Ages									
	0.3	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.2	Total
Females										
Mean Length (mm)	-	-	512	573	516	465	528	582	568	538
SE	-	-	1	2	-	22	1	11	-	1
Range	-	-	428-593	480-649	516-516	406-501	439-598	515-616	568-568	406-649
Sample Size	0	0	256	289	1	4	315	8	1	874
Males										
Mean Length (mm)	544	416	537	604	512	427	553	581	540	562
SE	-	6	2	2	-	8	2	15	-	2
Range	544-544	406-434	434-636	509-666	512-512	400-449	454-605	549-621	540-540	400-666
Sample Size	1	4	216	207	1	6	172	4	1	612
All Fish										
Mean Length (mm)	544	406	520	585	514	405	535	582	554	543
SE	-	7	1	1	2	6	1	8	14	1
Range	544-544	377-434	422-636	409-666	512-516	353-501	437-605	515-621	540-568	353-666
Sample Size	1	7	514	502	2	34	497	12	2	1,571

Table 60. Estimated sex composition of Spiridon Lake (Telrod Cove) sockeye salmon terminal harvest by week, 2002.

Week	Dates	Sample Size			Escapement			Number		
		Females	Males	Total	Percent	Females	Males	Females	Males	Total
26	6/21-6/27	0	0	0	51.3	48.7	5,234	4,973	10,207	
27	6/28-7/04	40	38	78	51.3	48.7	18,903	17,939	36,842	
28	7/05-7/11	139	129	268	52.1	47.9	14,943	13,716	28,659	
29	7/12-7/18	132	113	245	54.1	45.9	30,376	25,814	56,190	
30	7/19-7/25	296	173	469	61.3	38.7	21,073	13,292	34,365	
31	7/26-8/01	232	161	393	60.4	39.6	13,867	9,079	22,946	
32	8/02-8/08	112	47	159	67.7	32.3	2,576	1,228	3,804	
33	8/09-8/15	25	15	40	63.9	36.1	3,674	2,080	5,754	
34	8/16-8/22	0	0	0	62.5	37.5	483	290	772	
Total		976	676	1,652	55.7	44.3	111,125	88,414	199,539	

Table 61. Estimated age composition of Inner and Outer Karluk Sections (255-10, 20) commercial sockeye salmon catch, 2002.

Week	Sample Size	Ages															Total	
		0.1	0.2	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	4.2	3.4		
25 6/14-6/20	312	Percent Numbers	0.6 317	0.3 158	0.9 475	8.0 4,092	8.2 4,180	5.2 2,627	35.2 17,894	1.0 516	0.0 0	26.6 13,549	8.2 4,174	0.3 158	5.0 2,556	0.0 0	0.3 158	100.0 50,856
26 6/21-6/27	0	Percent Numbers	0.4 51	0.2 25	0.6 76	12.4 1,591	6.8 875	9.6 1,226	34.3 4,399	1.7 214	0.0 0	23.2 2,973	6.7 855	0.2 25	3.8 484	0.0 0	0.2 25	100.0 12,820
27 6/28-7/04	250	Percent Numbers	0.1 24	0.1 12	0.2 36	17.9 3,888	5.1 1,102	15.1 3,278	33.2 7,221	2.5 540	0.0 0	18.9 4,102	4.7 1,029	0.1 12	2.2 478	0.0 0	0.1 12	100.0 21,734
28 7/05-7/11	0	Percent Numbers	0.0 0	0.2 12	0.7 49	11.7 849	4.6 336	12.4 901	34.9 2,527	2.4 171	0.2 12	26.6 1,927	4.2 301	0.2 12	1.9 140	0.0 0	0.0 0	100.0 7,238
29 7/12-7/18	377	Percent Numbers	0.0 0	0.2 37	1.0 148	6.7 1,032	4.4 677	9.1 1,387	38.0 5,816	2.0 311	0.2 37	30.7 4,688	5.0 760	0.4 59	2.2 341	0.0 0	0.0 0	100.0 15,293
31 7/26-8/01	0	Percent Numbers	0.0 0	0.0 0	0.1 1	3.1 23	1.3 10	2.5 18	55.3 407	1.2 9	0.0 0	20.3 149	11.4 84	1.5 11	3.2 23	0.0 0	0.0 0	100.0 736
32 8/02-8/08	361	Percent Numbers	0.0 0	0.0 1	0.0 4	2.5 463	1.0 184	1.5 279	58.9 11,076	1.1 201	0.0 1	16.2 3,050	14.6 2,737	1.2 233	3.1 575	0.0 0	0.0 0	100.0 18,804
33 8/09-8/15	348	Percent Numbers	0.0 0	0.0 0	0.0 0	1.8 807	1.4 600	1.1 467	62.5 27,745	0.9 412	0.0 0	8.5 3,777	21.5 9,543	0.1 32	2.2 993	0.1 48	0.0 0	100.0 44,426
34 8/16-8/22	348	Percent Numbers	0.0 0	0.0 0	0.0 0	1.0 170	2.1 357	0.7 109	61.7 10,277	1.1 185	0.0 0	9.0 1,499	22.1 3,679	0.0 0	1.8 300	0.5 83	0.0 0	100.0 16,658
Total	1,996	Percent Numbers	0.2 391	0.1 246	0.4 789	6.8 12,917	4.4 8,321	5.5 10,292	46.3 87,360	1.4 2,559	0.0 51	18.9 35,717	12.3 23,163	0.3 544	3.1 5,891	0.1 131	0.1 195	100.0 188,565

Table 62. Estimated age composition of Sturgeon Section (256-40) commercial sockeye salmon catch, 2002.

Week	Sample Size	Ages											Total	
		1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	4.2	4.3		
32 8/02-8/08	330	Percent	1.5	0.3	1.8	51.2	0.3	21.5	17.0	0.3	5.5	0.3	0.3	100.0
		Numbers	228	46	273	7,698	46	3,234	2,551	46	820	46	46	15,031
Total	330	Percent	1.5	0.3	1.8	51.2	0.3	21.5	17.0	0.3	5.5	0.3	0.3	100.0
		Numbers	228	46	273	7,698	46	3,234	2,551	46	820	46	46	15,031 ^a

^a Age composition estimates represent harvest from week 32. The total Sturgeon Section harvest was 17,725 sockeye salmon.

Table 63. Estimated age composition of Inner and Outer Ayakulik Sections (256-10, 15, 20) commercial sockeye salmon catch, 2002.

Week	Sample Size	Ages										Total	
		0.1	1.1	1.2	2.1	1.3	2.2	3.1	2.3	3.2	3.3		
25 6/14-6/20	150	Percent	2.0	0.7	8.7	8.0	20.7	30.0	0.7	19.3	2.0	8.0	100.0
		Numbers	86	29	374	345	891	1,294	29	834	86	345	4,313
Total	150	Percent	2.0	0.7	8.7	8.0	20.7	30.0	0.7	19.3	2.0	8.0	100.0
		Numbers	86	29	374	345	891	1,294	29	834	86	345	4,313 ^a

^a Age composition estimates represent harvest from week 25. The total Inner and Outer Ayakulik Sections harvest was 7,228 sockeye salmon. Total harvest includes 2,900 personal use fish harvested on 6/12/02 with commercial gear.

Table 64. Age composition of Alitak Bay (Chip Cove) test fishery sockeye salmon catch samples by week, 2002.

Week	Dates		Ages											Total	
			0.3	1.2	1.3	1.4	2.2	2.3	2.4	3.1	3.2	3.3	3.4		
22	5/24-5/30	Numbers	0	0	0	0	0	2	0	0	0	2	0	4	
		Percent	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	0.0		
23	5/31-6/06	Numbers	0	2	9	3	3	26	0	0	0	5	0	48	
		Percent	0.0	4.0	19.0	6.0	6.0	54.0	0.0	0.0	0.0	10.0	0.0		
24	6/07-6/13	Numbers	0	0	14	1	22	66	0	0	0	3	0	106	
		Percent	0.0	0.0	13.0	1.0	21.0	62.0	0.0	0.0	0.0	3.0	0.0		
25	6/14-6/20	Numbers	3	3	17	3	35	84	3	0	0	9	1	158	
		Percent	2.0	2.0	11.0	2.0	22.0	53.0	2.0	0.0	0.0	6.0	1.0		
26	6/21-6/27	Numbers	1	2	11	4	22	77	0	0	0	4	0	121	
		Percent	1.0	2.0	9.0	3.0	18.0	64.0	0.0	0.0	0.0	3.0	0.0		
27	6/28-7/04	Numbers	0	6	10	1	26	46	0	1	0	5	0	95	
		Percent	0.0	6.0	11.0	1.0	27.0	48.0	0.0	1.0	0.0	5.0	0.0		
28	7/05-7/11	Numbers	0	3	14	0	7	51	1	0	0	8	1	85	
		Percent	0.0	4.0	16.0	0.0	8.0	60.0	1.0	0.0	0.0	9.0	1.0		
29	7/12-7/18	Numbers	0	0	4	0	8	13	0	0	1	2	0	28	
		Percent	0.0	0.0	14.0	0.0	29.0	46.0	0.0	0.0	4.0	7.0	0.0		
30	7/19-7/25	Numbers	0	0	1	0	13	7	0	0	0	0	0	21	
		Percent	0.0	0.0	5.0	0.0	62.0	33.0	0.0	0.0	0.0	0.0	0.0		
31	7/26-8/01	Numbers	0	0	0	0	7	3	0	0	1	0	0	11	
		Percent	0.0	0.0	0.0	0.0	64.0	27.0	0.0	0.0	9.0	0.0	0.0		
Total		Numbers	4	16	80	12	143	375	4	1	2	38	2	677	
		Percent	1.0	2.0	12.0	2.0	21.0	55.0	1.0	0.0	0.0	6.0	0.0		

Table 65. Estimated age composition of Humpy-Deadman Section (257-50, 60, 70) commercial sockeye salmon catch by week, 2002.

Week	Sample Size		Ages									Total
			0.2	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	
30 7/19-7/25	104	Percent Numbers	0.1 1	8.7 242	1.0 27	35.3 983	35.1 978	1.8 51	14.3 397	1.0 27	2.8 78	100.0 2,785
31 7/26-8/01	85	Percent Numbers	1.1 12	9.4 101	1.2 13	9.4 101	65.7 704	0.1 1	10.7 115	1.2 13	1.2 13	100.0 1,072
Total	189	Percent Numbers	0.4 14	8.9 342	1.0 40	28.1 1,084	43.6 1,682	1.4 52	13.3 512	1.0 40	2.4 92	100.0 3,857 ^a

^a Age composition estimates represent harvest through week 30-31. The total Humpy-Deadman Section harvest was 14,575 sockeye salmon.

Table 66. Spiridon Lake sockeye salmon estimated catch by area and estimated total run by age class, 2002.

Week	Sample Size	Ages										Total
		1.1	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	
<i>Estimated Spiridon Catch by Area</i>												
SLTHA	1,572											
	Percent	0.2	0.0	36.1	2.0	0.0	35.8	24.7	0.1	1.0	0.1	100.0
	Numbers	466	59	71,962	4,077	0	71,479	49,330	139	1,909	119	199,539
<i>SW Afognak Section and NW Kodiak District</i>												
	Percent ^a	0.2	0.0	36.1	2.0	0.0	35.8	24.7	0.1	1.0	0.1	100.0
	Numbers ^b	518	0	105,516	5,756	0	104,525	72,102	353	3,007	373	292,090
Total Run	Percent	0.2	0.0	36.1	2.0	0.0	35.8	24.7	0.1	1.0	0.1	100.0
1,572	Numbers	983	0	177,478	9,833	0	176,003	121,432	492	4,916	492	491,629

^a Age composition based on samples collected at SLTHA.

^b Average proportion of Spiridon harvest occurring in the SLTHA (41%) was used to calculate the number of Spiridon sockeye salmon harvested in the SW Afognak Section and NW Kodiak District combined.

Table 67. Karluk Lake early-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.

Sample Size	Ages												Total	
	1.1	1.2	1.3	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.2		
<i>Estimated Karluk Early-Run Catch by Area</i>														
Uyak (254-10 - 254-40) ^a														
1,989	Percent	0.0	0.7	1.1	0.0	39.0	35.9	0.2	0.0	12.7	10.1	0.1	0.2	
	Numbers	0	599	942	0	32,923	30,273	198	0	10,747	8,506	102	134	
Uganik (253-11 - 253-35) ^a														
2,150	Percent	0.0	0.7	1.1	0.4	38.8	35.7	0.2	0.3	15.7	6.6	0.5	0.0	
	Numbers	0	182	285	103	9,976	9,173	60	85	4,028	1,700	137	0	
Inner and Outer Karluk Sections														
939	Percent	0.8	0.6	0.9	12.3	32.8	30.1	0.2	2.9	12.1	6.9	0.3	0.0	
	Numbers	470	339	533	6,997	18,651	17,149	112	1,669	6,871	3,898	195	0	
Sturgeon Section														
no catch during 2002														
Total Catch	5,078	Percent	0.3	0.7	1.1	4.3	36.8	33.9	0.2	1.1	13.0	8.4	0.3	
		Numbers	470	1,120	1,760	7,100	61,550	56,595	370	1,755	21,645	14,104	434	
<i>Karluk Early-Run Escapement</i>														
1,711	Percent	0.1	0.7	1.1	2.8	37.7	34.7	0.2	0.3	13.7	8.4	0.1	0.2	
	Numbers	428	3,138	4,931	12,785	172,414	158,534	1,036	1,519	62,384	38,365	608	701	
Total Run	6,789	Percent	0.1	0.7	1.1	3.2	37.5	34.5	0.2	0.5	13.5	8.4	0.2	
	Numbers	898	4,258	6,691	19,885	233,964	215,129	1,405	3,274	84,029	52,470	1,042	835	

^a Uyak and Uganik catches were apportioned to Karluk using an age 3. marker.

Table 68. Karluk Lake early-run sockeye salmon brood table showing estimated returns from parent escapements by age class.

Brood Year	Escap.	Ages																Total Return	Return/ Spawne	
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	4.1	2.4	3.3	4.2	3.4	4.3	4.4
1976	204,037																			0
1977	185,312																			0 0 0
1978	248,741																			0 0 0 0
1979	212,872																			0 0 0 0
1980	132,396							0 11,635	193,760	4,085		0 103,899	60,395	0	0 641	14,673	0	0 0 0		0 0 0 0
1981	97,937		0 8,558	18,604		0 3,735	278,831	1,672		0 117,158	38,129	0 272	22,433	0	0 0 0	0 0 0				
1982	122,705	0 1,244	841	4,650	5,466	0 21,058	197,293	4,169		0 93,560	37,079	0 0	20,728	0	0 0 0	0 0 0	0 320			
1983	215,620	0 143	564	8,159	7,032	0 14,244	149,947	1,728		0 183,829	33,945	0 337	14,082	0	0 0 0	0 0 0	414,009	1.9		
1984	288,422	0 0 0	4,090	8,393	0 5,830	97,537	738		0 94,258	30,589	0 908	19,634	0	0 0 0	0 0 0	261,977	0.9			
1985	316,688	0 0 24	4,258	2,842	0 3,969	72,857	3,010		0 88,599	57,934	0 1,955	40,331	0	38 30	0 0	275,847	0.9			
1986	358,756	24 0	337	6,152	2,201	346 6,443	87,691	4,031	94	129,381	131,218	0 479	61,223	1,508	235 113	0 0	431,475	1.2		
1987	354,094	427 0	1,456	958	2,884	0 8,503	114,504	19,876	416	44,051	337,905	0 285	60,244	2,309	690 1,969	0 0	596,477	1.7		
1988	296,510	0 0 0	8,383	6,297	0 9,708	84,322	13,770	0	37,096	202,729	0 320	70,357	231	39 2,906	0 0	436,159	1.5			
1989	349,753	0 1,621	0 8,492	7,624	0 13,979	104,564	5,517	0	167,751	101,296	0 1	69,709	5,362	0 1,713	0 0	487,630	1.4			
1990	196,197	0 181	0 18,149	2,780	0 50,649	79,156	6,586	652	146,751	97,063	0 269	70,863	760	0 0 0	0 0 0	473,858	2.4			
1991	243,069	0 1,224	1,062	26,661	12,015	0 83,430	326,422	7,087	0 127,809	81,364	809 107	12,113	2,476	0 247	0 0	682,826	2.8			
1992	217,152	0 2,669	4 9,627	9,642	0 13,159	52,730	14,935	0	42,891	58,375	0 769	36,603	0 79	0 0	0 0	241,483	1.1			
1993	261,169	2 1,534	350	3,309	18,252	0 7,718	226,377	2,275	0 128,158	35,029	0 1,752	42,563	437 288	0 0	468,044	1.8				
1994	260,771	0 1,017	0 8,956	7,266	0 41,179	294,780	1,857	427	182,133	54,148	0 587	33,887	1,781	1,042	0					
1995	238,079	0 218	0 23,268	13,106	0 33,004	231,809	3,463	0	245,934	83,559	0 1,405	52,470	835							
1996	250,357	0 0 0	2,063	5,959	0 2,217	253,847	2,326	0	215,129	84,029	0									
1997	252,859	0 0 1,838	3,930	11,696	0 6,691	233,964	3,274													
1998	252,298	0 574	0 4,258	19,885																
1999	392,419	0 898																		
2000	291,351																			
2001	338,799																			
2002	456,842																			
10-year average (1984-1993):																			1.6	

Table 69. Karluk Lake late-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.

Sample Size	Ages												Total	
	0.1	1.2	1.3	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.2		
<i>Estimated Karluk Late-Run Catch by Area</i>														
Uyak (254-10 - 254-40) ^a														
2,105	Percent	0.0	0.1	0.0	4.5	59.7	11.7	0.1	3.0	18.9	1.9	0.0	0.1	
	Numbers	0	171	85	10,716	140,690	27,548	124	6,957	44,575	4,576	0	140	
Uganik (253-11 - 253-35) ^a														
	Percent	0.0	0.1	0.0	0.9	63.7	13.7	0.1	0.5	18.4	2.6	0.1	0.0	
2,314	Numbers	0	90	45	1,136	78,363	16,859	65	565	22,592	3,184	127	0	
Inner and Outer Karluk Sections														
1,434	Percent	0.0	0.1	0.0	1.6	62.7	11.9	0.1	1.1	20.0	2.4	0.0	0.1	
	Numbers	0	64	32	1,323	51,234	9,733	46	889	16,293	1,993	0	52	
Sturgeon Section														
330	Percent	0.0	0.1	0.0	0.3	53.3	22.4	0.1	0.3	17.7	5.7	0.0	0.1	
	Numbers	0	14	7	54	9,077	3,814	10	54	3,008	967	0	11	
Total Catch	3,869	Percent	0.0	0.1	0.0	2.9	61.1	12.7	0.1	1.9	18.9	2.3	0.0	
		Numbers	0	339	169	13,230	279,364	57,955	245	8,465	86,468	10,721	127	
<i>Karluk Late-Run Escapement</i>														
1,607	Percent	0.0	0.1	0.0	5.0	52.5	22.4	0.0	2.5	13.1	4.3	0.0	0.0	
	Numbers	155	247	123	20,557	214,678	91,490	179	10,217	53,352	17,533	0	202	
Total Run	5,476	Percent	0.0	0.1	0.0	3.9	57.0	17.3	0.0	2.2	16.1	3.3	0.0	
	Numbers	155	586	291	33,787	494,043	149,445	424	18,682	139,820	28,254	128	405	
													866,019	

^a Uyak and Uganik catches were apportioned to Karluk using an age 3. marker.

Table 70. Karluk Lake late-run sockeye salmon brood table showing estimated returns from parent escapements by age class.

Brood Year	Escap.	Ages															Total Return/ Return Spawner						
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	4.2	3.4	4.3				
1976	319,459																						
1977	366,936																0	0					
1978	112,194																0	0	0				
1979	248,908																0	0	0				
1980	14,227								0	446	596,053	4,476	0	156,074	177,587	1,190	25,537	0	0	0			
1981	124,769								0	5,158	13,129	0	0	402,872	2,521	0	187,293	49,557	0	14,077	0	0	0
1982	41,702		0	0	0	0			1,261	0	5,239	290,631	606	0	110,997	34,711	0	19,631	0	0	0		
1983	220,795	0	0	0	4,079	4,160	12,830	0	480	241,803	1,268	31	213,452	42,156	2,070	47,370	0	0	0				
1984	131,846	0	885	0	0	445	6,246	0	30,516	424,123	0	937	303,542	271,018	471	71,764	651	0	0	1,110,598	8.4		
1985	679,260	169	0	0	1,084	30,165	212	189	60,235	784,914	494	595	493,743	421,972	462	43,998	0	42	0	1,838,274	2.7		
1986	528,415	0	893	0	15,519	39,109	978	105	57,974	835,214	1,162	0	114,862	655,219	563	60,240	325	147	1,623	1,783,933	3.4		
1987	412,157	106	5,976	201	17,067	24,703	1,737	0	550	226,552	2,373	0	23,389	320,723	79	54,451	1,600	0	0	679,507	1.6		
1988	282,306	0	2,531	111	2,424	4,649	1,512	0	3,127	189,196	7,249	0	71,078	212,649	0	16,740	0	0	9	511,274	1.8		
1989	758,893	0	3,555	799	3,717	5,909	12,607	0	3,302	308,439	6,233	0	151,212	214,110	0	12,030	950	0	0	722,863	1.0		
1990	541,891	0	3,591	971	6,292	16,995	3,241	0	10,310	447,371	1,085	18	52,479	80,226	591	62,392	1,095	0	64	686,721	1.3		
1991	831,970	0	7,113	340	2,879	16,292	3,023	0	8,568	340,535	4,731	52	191,311	85,334	952	13,107	659	111	0	675,007	0.8		
1992	614,262	0	1,567	1,923	0	3,880	6,759	0	12,234	57,188	5,043	0	76,196	138,987	513	28,379	0	0	0	332,669	0.5		
1993	396,288	0	0	1,501	2,860	3,550	17,168	0	11,541	412,758	1,362	36	202,913	75,591	0	23,523	0	0	0	752,802	1.9		
1994	587,258	0	0	198	1,192	24,718	4,323	0	17,261	616,350	1,008	0	159,094	109,890	551	41,274	821	128	0	976,808	1.7		
1995	504,977	0	1,156	0	3,219	48,766	8,685	0	1,839	353,857	5,252	0	390,880	129,216	424	28,253	405						
1996	323,969	0	540	633	0	2,970	108	0	469	283,071	2,817	0	149,445	139,820									
1997	311,902	0	0	407	0	1,473	21,821	0	291	494,043	18,682												
1998	384,848	0	0	136	0	586	33,787																
1999	589,119	0	0	0																			
2000	445,393	155																					
2001	524,739																						
2002	408,734																						
																		10-year average (1985-1994):	895,986	1.7			

Table 71. Red Lake (Ayakulik River) sockeye salmon, estimated catch by area, escapement, and estimated total run by age class, 2002.

Sample Size	Ages													Total		
	0.1	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	2.3	3.2	2.4	3.3			
<i>Estimated Ayakulik (Red Lake) Catch by Area</i>																
Inner and Outer Ayakulik Sections																
90% of catch	150	Percent	2.0	0.7	0.0	8.7	8.0	0.0	20.7	30.0	0.7	19.3	2.0	0.0	8.0	100.0
		Numbers	130	43	0	564	520	0	1,344	1,952	43	1,258	130	0	520	6,505
Halibut Bay catch assigned to Ayakulik																
<i>No Catch in the Halibut Bay Section</i>																
<i>Total Estimated Ayakulik Catch</i>																
	150	Percent	2.0	0.7	0.0	8.7	8.0	0.0	20.7	30.0	0.7	19.3	2.0	0.0	8.0	100.0
		Numbers	130	43	0	564	520	0	1,344	1,952	43	1,258	130	0	520	6,505
<i>Ayakulik (Red Lake) Escapement</i>																
	1,567	Percent	0.0	1.3	0.3	12.7	1.1	0.3	4.5	14.3	0.1	62.2	0.3	0.5	2.4	100.0
		Numbers	0	2,909	597	29,119	2,409	597	10,423	32,863	287	142,677	672	1,125	5,614	229,292
<i>Total Run</i>																
	1,717	Percent	0.1	1.3	0.3	12.6	1.2	0.3	5.0	14.8	0.1	61.0	0.3	0.5	2.6	100.0
		Numbers	130	2,953	597	29,683	2,929	597	11,767	34,814	330	143,934	802	1,125	6,135	235,797

Table 72. Red Lake (Ayakulik River) sockeye salmon brood table showing estimated returns from parent escapements by age class.

Brood Year	Escap.	Ages													Total Return/	Return/ Spawner	
		0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	3.4	
1963	63,563										0	58,667	6,268	0	0	0	
1964	36,342										0	5,705	3,375	0	0	0	
1965	76,456			0	158	3,470	0	0	33,522	0	0	13,150	5,534	0	0	0	
1966	66,057	0	315	0	1,173	16,622	0	3,285	57,850	0	0	51,109	7,031	0	0	0	137,384 2.1
1967	227,089	0	1,772	0	24,013	3,338	0	16,469	78,834	0	0	23,976	0	0	0	0	148,402 0.7
1968	220,850	0	83	0	4,199	2,825	0	34,463	89,549	0	0	123,053	8,493	0	0	0	262,665 1.2
1969	71,160	0	0	0	4,756	3,703	0	3,704	78,972	0	0	13,734	652	0	0	0	105,523 1.5
1970	33,863	0	0	0	1,084	6,325	0	2,052	17,543	0	0	9,152	3,274	0	0	0	39,429 1.2
1971	109,174	0	3,251	0	35,919	18,925	0	26,505	184,053	0	0	16,736	3,364	0	0	0	288,753 2.6
1972	113,733	0	5,080	0	121,160	6,723	0	99,681	260,325	0	0	71,225	0	0	0	0	564,194 5.0
1973	119,993	0	986	1,395	79,993	7,548	0	82,532	110,906	0	0	45,469	1,393	0	0	0	330,221 2.8
1974	181,631	0	3,364	0	46,281	0	0	45,109	129,000	0	0	221,923	3,892	0	0	0	449,570 2.5
1975	94,517	0	0	1,393	10,982	14,989	0	30,950	308,251	0	0	96,141	858	0	0	0	463,563 4.9
1976	219,047	0	5,835	3,855	405,330	8,408	0	164,495	187,009	0	0	61,395	0	0	0	0	836,328 3.8
1977	306,982	0	0	0	5,060	3,431	0	18,656	170,721	0	0	85,541	3,940	0	0	0	287,349 0.9
1978	132,864	0	0	0	1,556	15,799	0	14,937	45,081	0	0	42,151	2,747	0	0	0	122,273 0.9
1979	222,270	0	3,625	441	16,345	18,352	0	40,958	131,539	0	0	41,815	1,438	0	0	0	254,511 1.1
1980	774,328	0	11,780	13,347	402,761	24,781	0	232,583	305,083	0	0	159,440	2,762	0	0	0	1,152,537 1.5
1981	279,200	0	17,149	0	310,784	7,450	0	230,889	328,622	0	0	168,527	28,564	0	0	0	1,091,984 3.9
1982	169,678	0	6,857	7,500	1,626	2,596	0	16,351	123,667	0	0	77,129	4,751	0	0	0	240,476 1.4
1983	171,415	0	548	1,171	20,198	15,116	0	72,231	168,055	0	0	104,765	0	0	0	0	382,085 2.2
1984	283,215	0	7,779	3,311	138,185	78,899	0	72,319	197,026	0	0	103,450	3,347	0	0	0	604,316 2.1
1985	388,759	0	61,345	3,903	365,489	18,971	0	589,731	513,314	0	0	229,750	4,276	0	0	0	1,786,779 4.6
1986	318,135	0	4,480	38,326	571,371	6,489	0	506,463	365,644	0	0	231,471	5,967	0	0	0	1,730,211 5.4
1987	261,913	0	12,991	15,380	173,341	13,602	0	103,512	317,142	0	0	341,728	32,807	0	5,063	0	1,015,566 3.9
1988	291,774	0	2,822	3,351	81,584	2,832	0	62,159	126,124	0	0	27,783	10,655	0	8,225	0	325,535 1.1
1989	768,101	0	2,571	5,565	26,297	29,189	0	18,318	310,379	0	0	254,557	59,553	0	46,238	0	752,667 1.0
1990	371,282	0	1,028	8,047	3,618	14,638	0	59,035	295,167	0	0	202,600	16,202	0	102	38	600,475 1.6
1991	384,859	640	22,371	17,118	145,925	36,123	0	393,249	482,187	0	19	158,923	5,779	64	2,796	0	1,265,194 3.3
1992	344,184	4,591	2,578	9,900	65,889	24,694	205	10,135	200,817	2,188	2,685	230,460	19,788	1,983	6,010	112	582,035 1.7
1993	286,170	0	3,093	3,678	2,504	16,283	400	176,539	409,718	516	8,075	138,504	7,591	344	5,426	0	772,671 2.7
1994	380,181	465	42,711	7,275	555,246	35,908	17,036	338,728	344,937	546	79	102,628	7,224	401	1,737	0	1,454,921 3.8
1995	317,832	0	4,711	4,707	101,292	18,181	516	53,759	227,822	3,186	0	240,294	22,068	1,125	6,135		
1996	337,155	269	1,770	17,050	16,902	8,589	332	93,851	198,161	364	0	143,934	802				
1997	308,214	5	1,250	4,810	14,447	5,395	597	11,767	34,814	330							
1998	427,208	0	4,554	597	29,683	2,929											
1999	295,717	0	2,953														
2000	208,651																
2001	218,892																
2002	229,292																

10-year average (1985-1994): 1,028,605 2.9

Table 73. Frazer Lake (Dog Salmon Creek) sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.

Sample Size	Ages												Total
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	4.1	2.4	3.3	
<i>Estimated Catch by Area</i>													
Cape Alitak Section													
Percent	0.0	9.3	1.1	40.1	27.8	0.0	0.0	16.3	0.0	2.2	0.0	3.3	100.0
189 Numbers	0	394	47	1,699	1,177	0	0	690	0	92	0	138	4,237
Moser-Olga Bay Section													
Percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0 Numbers	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Estimated Frazer Catch													
Percent	0.0	9.3	1.1	40.1	27.8	0.0	0.0	16.3	0.0	2.2	0.0	3.3	100.0
Numbers	0	394	47	1,699	1,177	0	0	690	0	92	0	138	4,237
<i>Dog Salmon Escapement</i>													
Percent	1.1	0.9	23.4	7.7	12.6	0.2	1.5	46.8	0.1	0.0	0.8	5.0	100.0
1453 Numbers	1,152	980	24,761	8,132	13,383	231	1,550	49,635	101	0	815	5,249	105,989
Total Run													
Percent	1.0	1.2	22.5	8.9	13.2	0.2	1.4	45.7	0.1	0.1	0.7	4.9	100.0
Numbers	1,152	1,374	24,808	9,831	14,560	231	1,550	50,325	101	92	815	5,387	110,226

Table 74. Frazer Lake (Dog Salmon Creek) sockeye salmon brood table showing estimated returns from parent escapements by age class.

Brood Year	Escap.	Ages											Total	Return/ Spawnei		
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4			
1962	3,090													385		
1963	11,857													0		
1964	9,966													66		
1965	9,074			0	0	1,291	475	12,518	0	0	2,571	66	0	0		
1966	16,456	0	0	0	11,820	1,732	7,580	16,149	0	0	2,629	0	0	39,910	2.4	
1967	21,834	0	1,118	0	38,626	395	38,395	11,553	0	0	5,114	0	0	95,202	4.4	
1968	16,738	0	461	0	15,565	899	15,228	14,998	0	0	10,757	0	0	57,910	3.5	
1969	14,041	0	138	0	14,654	5,229	9,306	30,137	0	0	6,007	0	0	512	65,984	4.7
1970	24,039	0	2,241	0	17,672	16,989	1,687	51,299	0	0	9,351	3,074	0	1,691	104,005	4.3
1971	55,366	0	512	0	1,417	6,345	769	92,226	0	0	20,151	0	0	0	121,419	2.2
1972	66,419	0	742	0	10,888	11,016	8,032	91,876	0	0	71,167	345	0	0	194,066	2.9
1973	56,255	0	256	0	2,677	5,637	4,825	31,706	345	0	15,969	0	0	0	61,415	1.1
1974	82,609	0	10,850	0	53,591	9,305	28,713	75,084	154	461	30,407	461	0	0	209,026	2.5
1975	64,199	0	1,034	0	22,571	8,906	20,732	173,687	0	0	72,701	0	0	0	299,631	4.7
1976	119,321	0	2,150	0	223,444	8,753	73,677	257,625	0	0	143,383	0	0	393	709,424	5.9
1977	139,548	0	2,764	0	73,189	2,928	92,211	107,917	0	0	146,064	393	0	0	425,466	3.0
1978	141,981	0	7,807	0	162,130	507	24,148	22,970	0	0	16,844	0	0	638	235,043	1.7
1979	126,742	0	507	0	1,374	982	2,965	24,323	0	0	26,791	0	0	2,165	59,106	0.5
1980	405,535	0	0	0	6,064	16,305	7,654	589,393	0	0	141,065	684	46	52	761,264	1.9
1981	377,716	0	876	0	12,120	0	2,455	7,748	0	172	5,239	0	0	862	29,471	0.1
1982	430,423	0	1,276	0	23,647	431	28,624	3,735	24	754	10,870	10,812	0	0	80,172	0.2
1983	158,340	0	10	26	8,935	9,729	13,438	380,531	1,604	0	586,833	0	0	36,986	1,038,092	6.6
1984	53,524	0	1,001	0	5,771	33,628	7,437	386,832	0	0	67,142	2,046	0	0	503,856	9.4
1985	485,835	0	192	0	16,502	4,399	49,290	53,978	151	0	22,578	9,032	1,595	2,694	160,412	0.3
1986	126,529	1,393	67,475	0	727,658	40,794	230,893	972,290	0	0	168,815	9,129	0	8,584	2,227,031	17.6
1987	40,544	0	1,787	1,851	3,019	26,596	3,902	187,581	0	0	159,822	104	156	882	385,701	9.5
1988	246,704	0	1,886	0	21,073	7,793	30,096	210,586	133	0	64,565	20,510	16	7,994	364,652	1.5
1989	360,373	0	16,191	208	327,929	12,847	153,078	373,277	5,752	0	300,182	145,325	0	40,754	1,375,543	3.8
1990	226,707	0	1,096	0	18,217	12,986	33,393	400,750	1,678	0	210,744	15,341	455	9,340	704,000	3.1
1991	190,358	0	621	0	2,031	57,463	1,728	330,834	302	0	105,361	630	0	0	498,970	2.6
1992	185,825	0	3,545	0	20,513	78,168	27,471	211,959	4,666	0	185,148	18,141	0	2,209	551,819	3.0
1993	178,391	0	2,529	45	12,677	41,759	56,178	291,218	4,831	0	64,155	17,867	256	5,830	497,344	2.8
1994	206,071	0	2,056	0	23,034	17,688	39,741	112,849	1,048	0	77,546	15,427	187	15,733	305,309	1.5
1995	196,323	0	10,106	0	59,574	39,574	77,223	152,287	1,251	0	251,356	11,284	815	5,387	608,857	3.1
1996	198,695	0	20,062	0	41,983	22,276	81,667	32,786	26	1,641	50,325	101				
1997	205,264	0	626	0	8,327	1,639	9,831	14,560	231							
1998	233,755	0	367	0	1,374	24,808										
1999	216,565	0	1,152													
2000	158,044															
2001	154,349															
2002	85,317															

10-Year Average (1986-1995): 751,923 4.8

Table 75. Olga Lakes (Upper Station) early-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.

Sample Size	Ages										Total ^a	
	1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3		
<i>Estimated Catch by Area</i>												
Cape Alitak Section												
Percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
189 Numbers	0	0	0	0	0	0	0	0	0	0	0	
Moser-Olga Bay Section												
Percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0 Numbers	0	0	0	0	0	0	0	0	0	0	0	
Total Estimated Upper Station Early-Run Catch												
Percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Numbers	0	0	0	0	0	0	0	0	0	0	0	
<i>Upper Station Early-Run Escapement</i>												
Percent	7.1	0.4	17.1	1.5	31.5	0.1	0.1	41.5	0.8	0.3	100.3	
1254 Numbers	2,598	145	6,264	558	11,566	34	25	15,238	281	92	36,709	
Total Run												
Percent	7.1	0.4	17.1	1.5	31.5	0.1	0.1	41.5	0.8	0.3	100.3	
Numbers	2,598	145	6,264	558	11,566	34	25	15,238	281	92	36,709	

^a Totals may not add due to rounding.

Table 76. Olga Lakes (Upper Station) early-run sockeye salmon brood table showing estimated returns from parent escapements by age class.

Brood Year	Escap.	Ages														Total Return	Return/ Spawner	
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	3.3	2.4		
1969	22,509	0	317	0	1,406	3,094	281	263	9,979	11,554	0	62	3,516	62	0	0	30,534	1.4
1970	16,168	0	375	188	788	2,889	263	0	1,850	3,269	0	0	1,469	367	0	0	11,458	0.7
1971	32,529	0	0	0	185	1,234	370	0	5,876	15,976	0	0	2,263	0	0	0	25,904	0.8
1972	39,613	0	185	62	1,102	5,693	184	0	3,482	18,977	0	0	8,603	574	208	0	39,070	1.0
1973	26,892	0	0	0	174	522	696	0	3,728	41,006	0	208	7,289	0	0	133	53,756	2.0
1974	35,319	0	0	522	0	26,382	0	0	16,660	38,317	0	0	11,720	133	0	0	93,734	2.7
1975	10,325	0	0	0	0	1,458	208	0	6,393	14,783	0	0	8,738	485	0	0	32,065	3.1
1976	28,567	0	0	0	133	9,722	0	0	10,438	47,090	0	0	27,139	0	0	0	94,522	3.3
1977	26,380	0	0	0	0	32,041	243	0	48,850	94,081	0	0	35,526	634	0	0	211,375	8.0
1978	66,157	0	243	243	1,809	28,948	0	0	32,354	70,735	0	0	19,660	0	37	0	154,029	2.3
1979	53,115	0	0	0	0	4,124	0	0	17,554	65,300	0	46	14,870	38	142	0	102,074	1.9
1980	37,866	0	317	0	2,341	11,937	0	0	4,000	7,165	38	0	7,259	0	25	0	33,082	0.9
1981	77,042	0	0	0	542	2,832	1,498	0	4,370	85,872	0	43	23,861	0	0	0	119,018	1.5
1982	170,610	0	2,472	234	1,006	113,439	781	0	75,684	37,220	0	360	18,131	70	0	0	249,398	1.5
1983	115,890	0	285	1,220	1,181	5,491	1,205	0	11,396	87,555	0	0	41,723	217	0	0	150,273	1.3
1984	96,798	0	109	0	3,443	2,118	66	0	1,792	46,879	0	0	14,103	113	60	0	68,683	0.7
1985	27,408	0	1,476	4	2,865	2,314	22,466	0	6,714	86,949	0	0	42,895	633	64	0	166,380	6.1
1986	100,812	0	35	5,680	449	51,361	936	0	36,048	83,179	60	18	8,248	340	408	0	186,763	1.9
1987	74,747	0	2,134	46	1,022	2,027	3,849	0	726	30,417	27	0	25,242	779	57	0	66,326	0.9
1988	56,724	0	17	0	71	82	852	0	1,607	35,640	210	206	7,282	1,072	0	0	47,038	0.8
1989	64,582	0	450	404	5,823	8,751	6,313	0	5,539	67,810	0	0	34,127	0	0	0	129,217	2.0
1990	56,159	0	1,497	578	0	6,275	3,414	0	19,145	82,269	0	0	6,839	361	6	0	120,384	2.1
1991	50,026	0	407	3,258	20,467	46,391	6,815	0	57,478	131,931	0	0	27,274	0	0	0	294,021	5.9
1992	19,076	52	2,338	223	5,878	5,959	3,583	0	3,435	24,099	0	0	7,268	0	0	0	52,835	2.8
1993	34,852	219	669	605	2,423	5,189	2,741	0	11,812	31,749	0	0	5,168	1,229	0	62	61,866	1.8
1994	37,645	0	229	994	4,887	53,607	1,320	0	7,176	33,104	0	0	17,361	570	0	0	119,248	3.2
1995	41,492	0	185	2,467	5,857	33,691	1,497	360	44,415	44,608	0	492	20,938	689	92	0	155,291	3.7
1996	58,686	0	79	177	2,723	30,487	1,973	0	81,164	51,987	4	25	15,238	281				
1997	47,655	0	422	45	0	972	2,438	0	558	11,566	34							
1998	30,713	0	0	6	0	145	6,264											
1999	36,521	0	0	2,598														
2000	55,761	0																
2001	66,795																	
2002	36,802																	

10-Year Average (1986-1995): 123,299 2.5

Table 77. Olga Lakes (Upper Station) late-run sockeye salmon estimated catch by area, escapement, and estimated total run by age class, 2002.a

Sample Size	Ages													Total	
	1.1	0.2	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3		
<i>Estimated Catch by Area</i>															
Cape Alitak Section															
Percent	0.0	1.1	0.0	9.1	1.1	8.3	67.7	0.0	0.0	10.0	1.6	0.0	1.1	100.0	
189 Numbers	0	102	0	850	103	781	6,342	0	1	935	150	0	104	9,368	
Moser-Olga Bay Section															
Percent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
0 Numbers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Estimated Upper Station Late Run Catch															
Percent	0.0	1.1	0.0	9.1	1.1	8.3	67.7	0.0	0.0	10.0	1.6	0.0	1.1	100.0	
Numbers	0	102	0	850	103	781	6,342	0	1	935	150	0	104	9,368	
<i>Upper Station Late Run Escapement</i>															
Percent	1.5	0.1	0.0	1.1	9.2	0.8	81.8	1.3	0.0	2.6	1.4	0.0	0.1	100.0	
1674 Numbers	2,323	177	0	1,661	13,877	1,151	122,864	1,984	0	3,921	2,132	20	143	150,253	
Total Run															
Percent	1.5	0.2	0.0	1.6	8.8	1.2	80.9	1.2	0.0	3.0	1.4	0.0	0.2	100.0	
Numbers	2,323	279	0	2,511	13,980	1,932	129,206	1,984	1	4,856	2,282	20	247	159,621	

^a Totals may not add up exactly due to rounding.

Table 78. Olga Lakes (Upper Station) late-run sockeye salmon brood table showing estimated returns from parent escapements by age class.

Brood Year	Escap.	Ages														Total Return/ Return Spawnei		
		0.1	0.2	1.1	0.3	1.2	2.1	0.4	1.3	2.2	3.1	1.4	2.3	3.2	3.3	2.4		
1970	36,833	0	675	12,594	9,969	81,964	4,431	0	9,161	30,644	632	0	6,171	1,424	0	0	157,663	4.3
1971	95,150	450	5,538	21,045	632	10,109	1,895	0	16,613	40,346	0	0	8,105	901	0	0	105,635	1.1
1972	68,351	3,323	10,425	11,689	17,563	39,397	3,797	0	8,105	58,539	0	0	4,027	0	0	0	156,866	2.3
1973	67,826	1,580	1,424	2,373	1,801	10,807	2,702	0	6,041	77,528	0	0	7,926	0	0	0	112,182	1.7
1974	251,234	0	0	23,416	0	107,734	1,007	0	22,645	294,387	0	0	7,680	7,040	0	0	463,908	1.8
1975	74,456	901	3,021	0	0	61,142	1,132	0	36,479	76,157	0	0	5,228	0	0	0	184,060	2.5
1976	48,650	0	10,190	0	36,479	38,399	2,560	0	11,501	141,154	0	0	10,336	940	0	0	251,559	5.2
1977	49,001	0	640	0	3,137	52,279	1,046	0	66,714	312,897	0	0	9,732	0	0	0	446,444	9.1
1978	38,126	0	82,601	1,046	90,205	134,367	4,698	0	55,146	217,342	0	0	26,755	2,638	0	0	614,798	16.1
1979	134,579	0	31,947	0	63,256	71,366	0	0	103,020	339,950	0	736	10,850	360	280	0	621,765	4.6
1980	77,718	0	124,890	0	56,178	35,951	2,131	0	21,758	55,472	399	0	16,555	965	223	0	314,522	4.0
1981	118,900	0	1,294	0	17,853	157,249	12,280	1,007	149,158	345,506	0	0	14,809	0	0	879	700,035	5.9
1982	306,161	0	644,017	5,129	324,600	364,312	5,029	117	92,824	231,963	0	0	5,168	2,042	0	0	1,675,201	5.5
1983	179,741	4,867	182,514	0	135,177	23,242	1,682	0	53,195	92,799	0	0	30,036	0	1,488	0	525,000	2.9
1984	239,608	3,012	37,733	528	89,721	187,451	5,064	0	21,543	224,033	0	0	23,712	4,642	0	0	597,438	2.5
1985	408,409	2,313	562,757	1,958	309,775	34,924	12,374	0	40,759	179,839	0	578	45,289	6,140	0	0	1,196,706	2.9
1986	367,922	1,449	72,415	1,953	94,380	291,815	5,610	678	116,039	451,917	0	0	17,721	1,579	1,289	6	1,056,851	2.9
1987	156,274	0	68,016	495	113,821	12,899	127	0	17,053	104,995	0	225	27,470	15,072	39	0	360,212	2.3
1988	247,647	0	9,222	216	27,793	76,583	1,000	0	71,330	80,102	177	133	4,037	1,244	0	0	271,836	1.1
1989	221,706	401	169,158	1,125	85,530	83,807	12,864	142	53,928	184,067	308	0	21,693	0	0	0	613,023	2.8
1990	198,287	1,432	56,992	3,904	115,907	27,747	7,728	444	17,591	237,284	0	0	4,315	0	67	0	473,411	2.4
1991	242,860	6,744	51,810	4,858	163,283	73,541	6,484	160	44,507	712,676	31	0	20,546	0	0	0	1,084,640	4.5
1992	199,067	4,913	61,018	1,108	15,733	58,923	12,611	79	6,302	279,349	0	0	7,189	156	192	26	447,599	2.2
1993	187,229	5,186	46,015	5,688	114,817	35,842	45,256	444	10,769	199,820	191	278	27,883	5,350	0	0	497,539	2.7
1994	221,675	1,417	10,206	6,322	23,167	90,488	17,439	44	25,603	293,322	80	0	6,069	968	0	0	475,125	2.1
1995	203,659	233	3,020	3,340	3,349	179,562	24,492	0	13,017	251,855	0	254	14,264	307	247	20	493,960	2.4
1996	235,727	277	1,972	6,536	1,335	35,606	4,057	0	15,478	88,856	121	1	4,856	2,282				
1997	230,793	0	347	0	916	2,842	11,901	0	1,932	129,206	1,984							
1998	171,214	0	0	89	0	2511	13979											
1999	210,016	0	279	2323														
2000	176,783	96																
2001	74,408																	
2002	150349																	

10-Year Average (1986-1995): 577,420 2.5

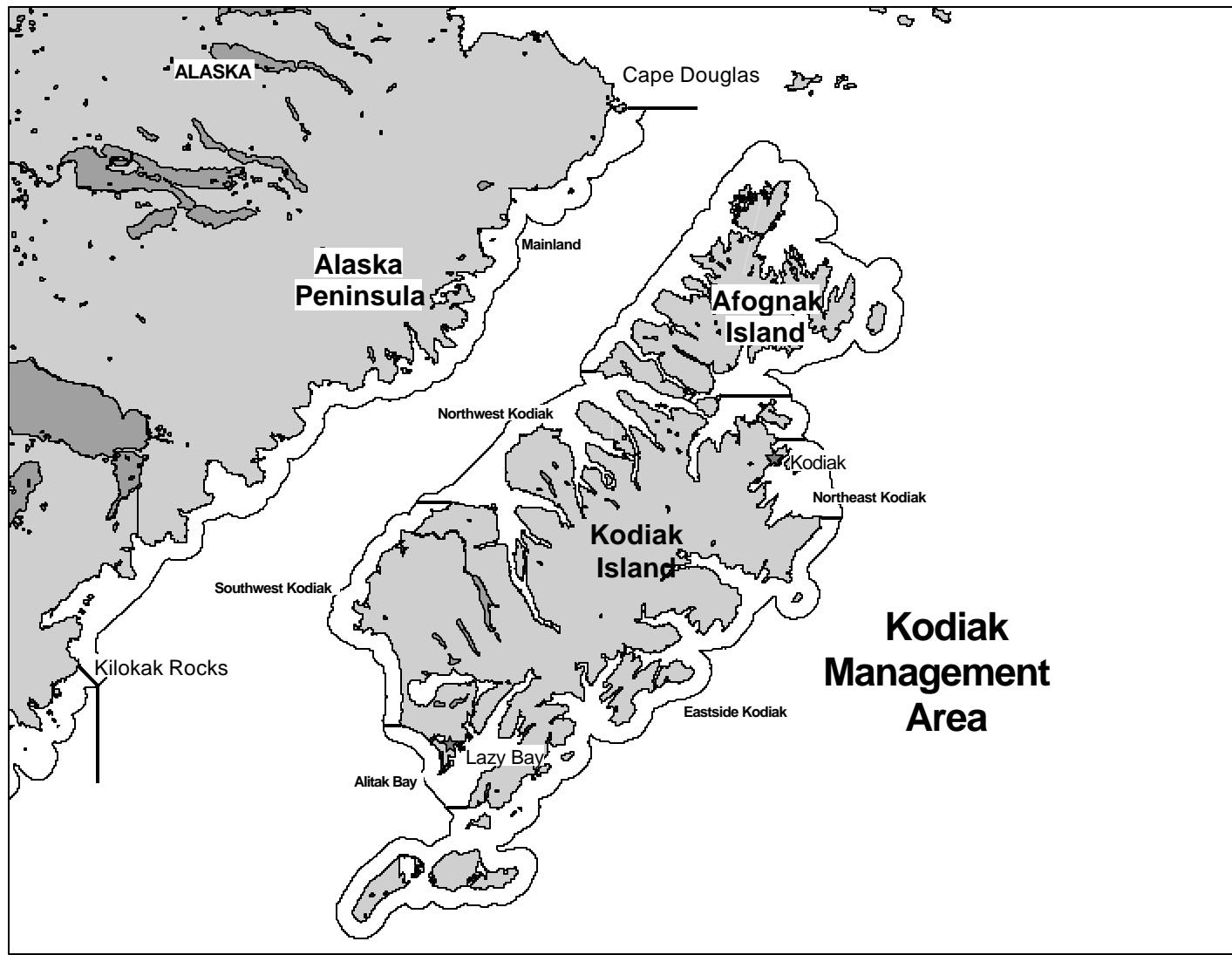


Figure 1. Map of the Kodiak Management Area identifying commercial salmon fishing districts and processing facility locations.

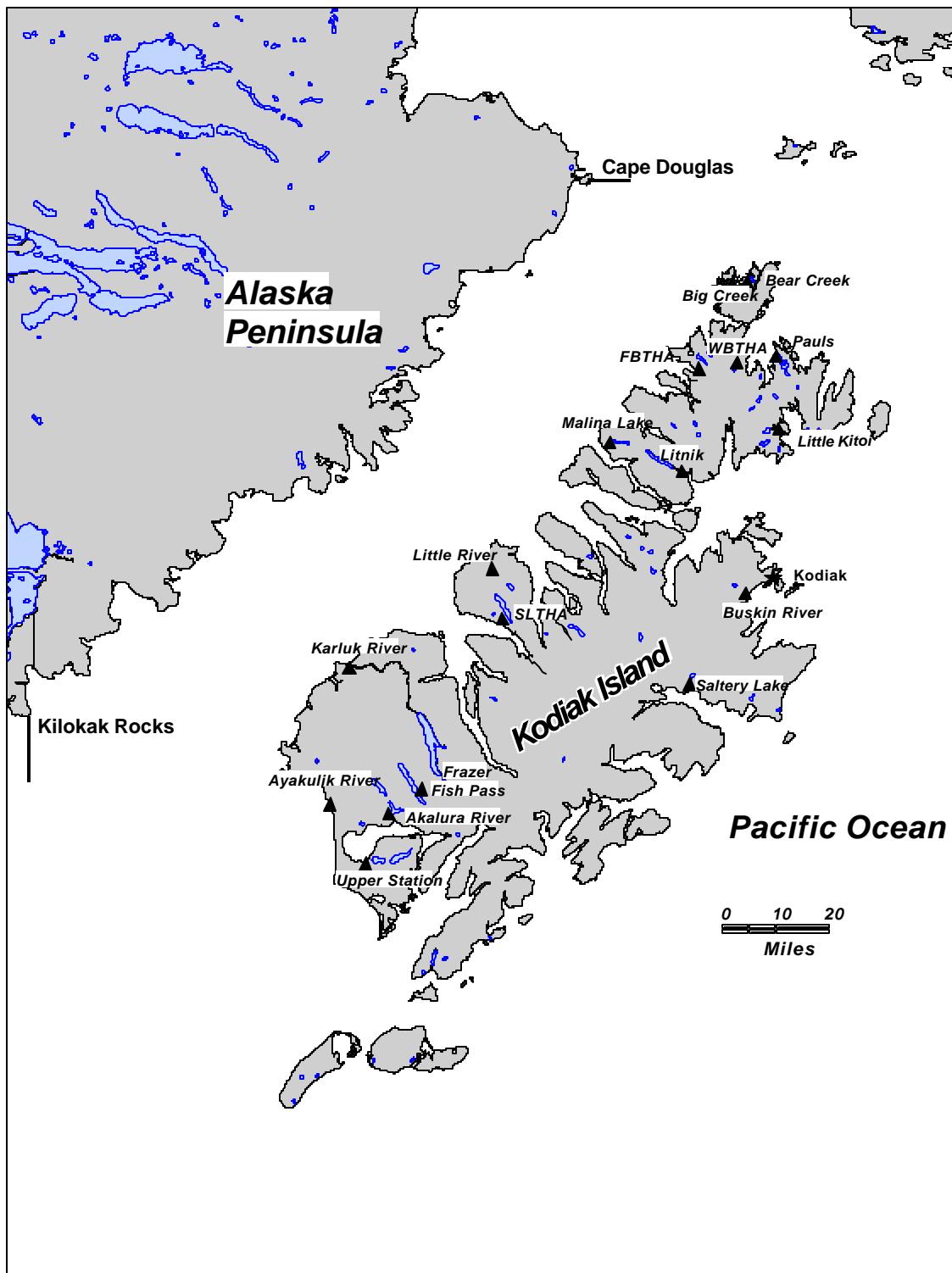


Figure 2. Salmon escapement sampling locations in the Kodiak Management Area, 2001.

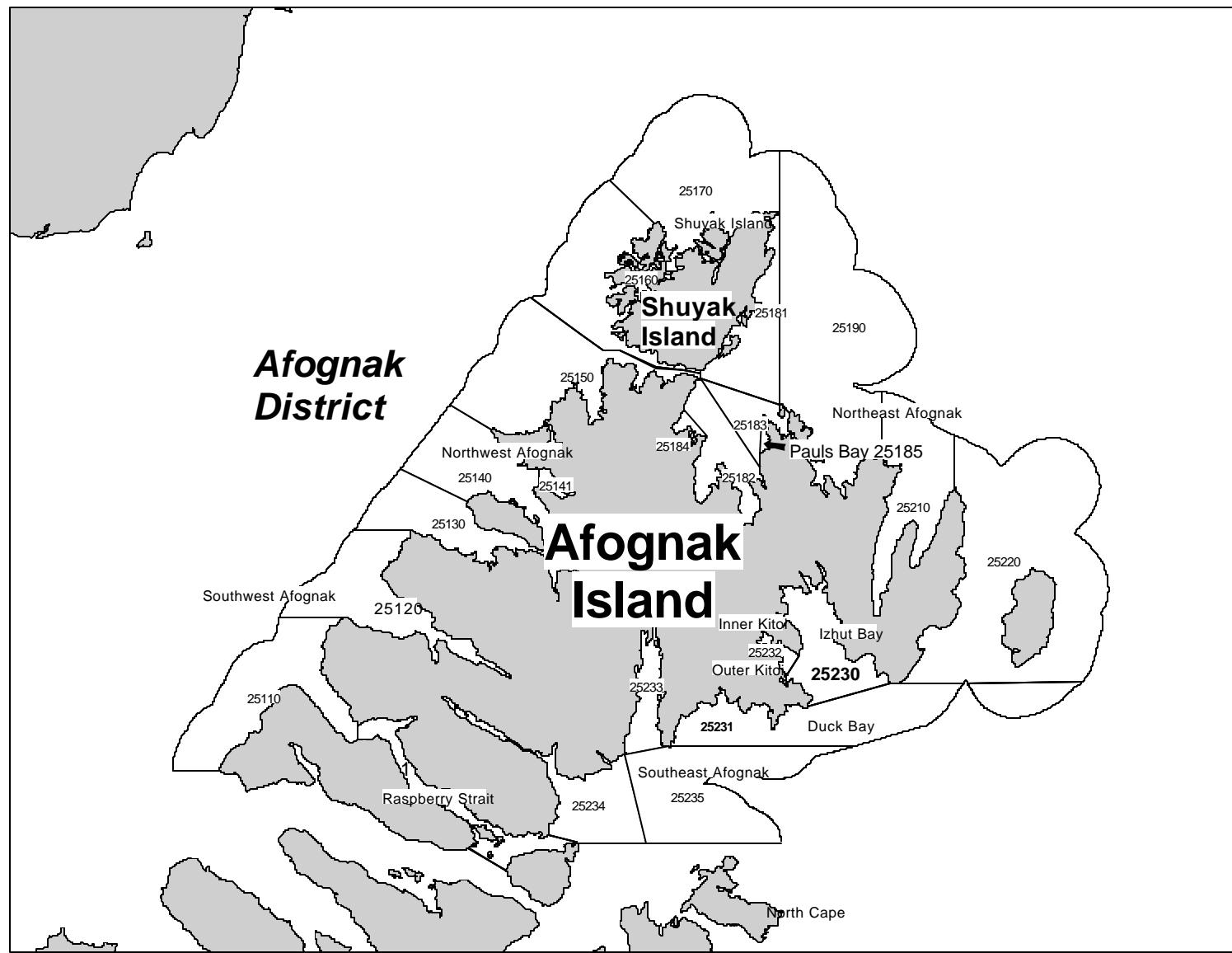


Figure 3. Map of the Afognak District identifying commercial salmon fishing sections and statistical areas.

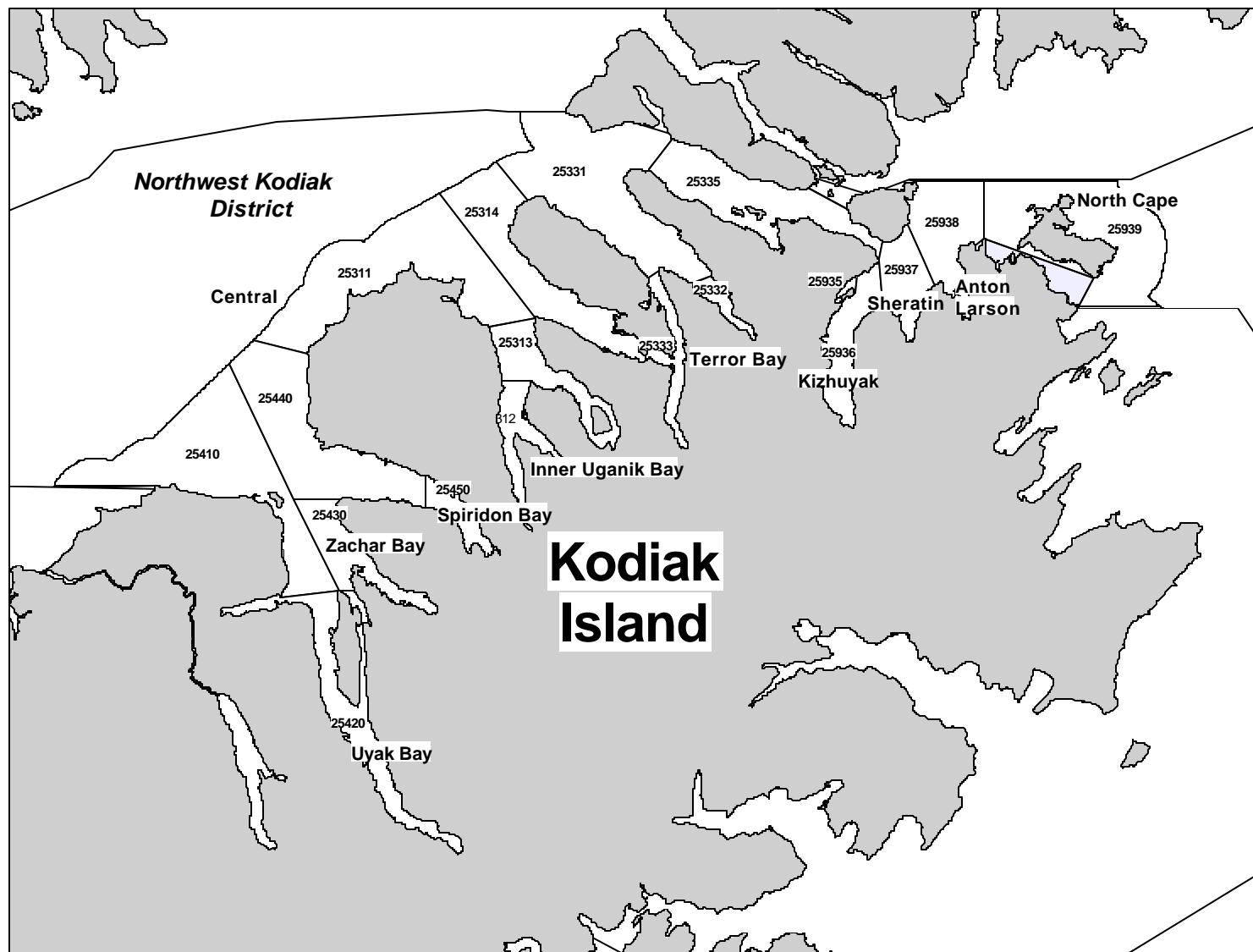


Figure 4. Map of the Northwest Kodiak District identifying commercial salmon fishing sections and statistical areas.

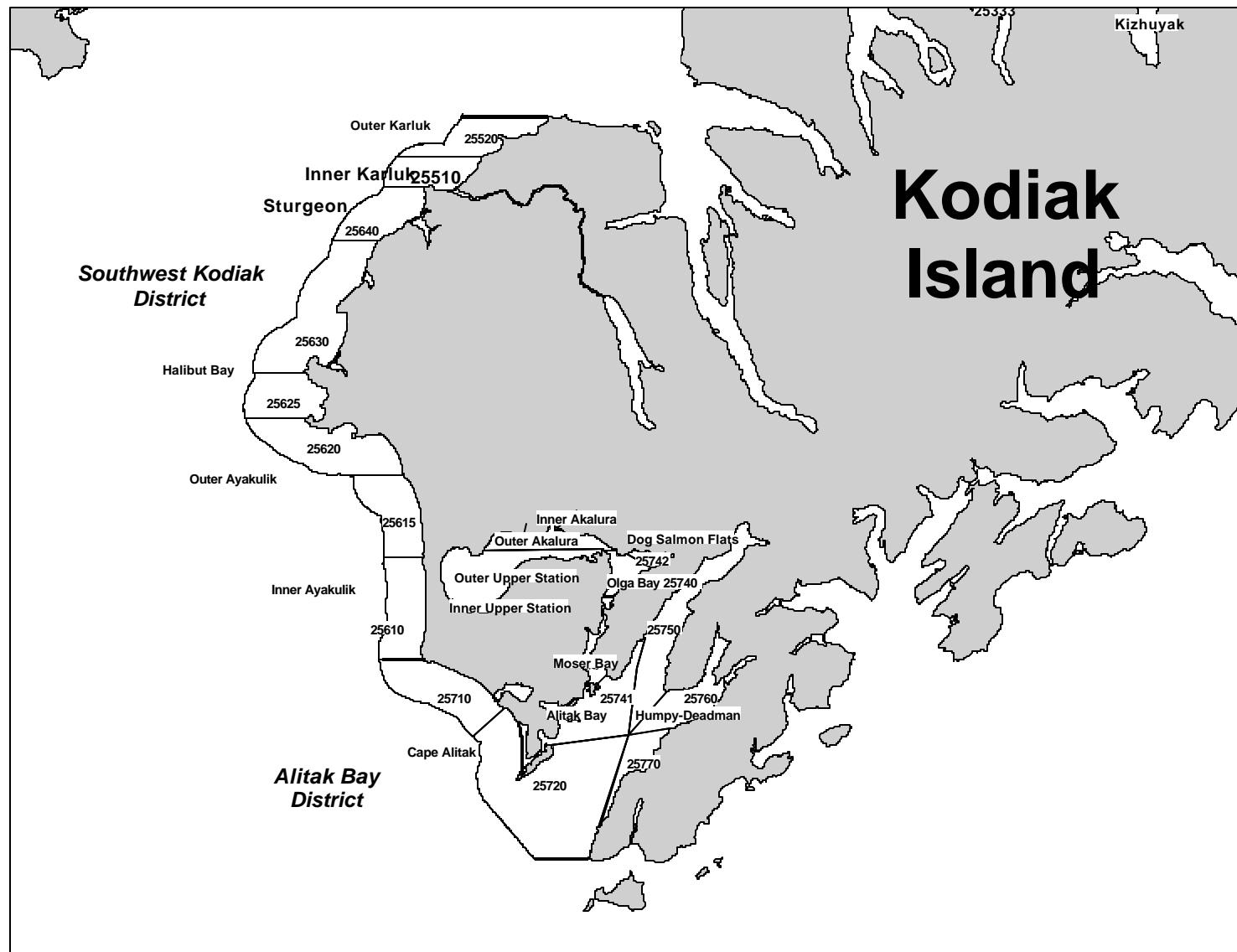


Figure 5. Map of the Southwest Kodiak and Alitak Bay Districts identifying commercial salmon fishing sections and statistical areas.

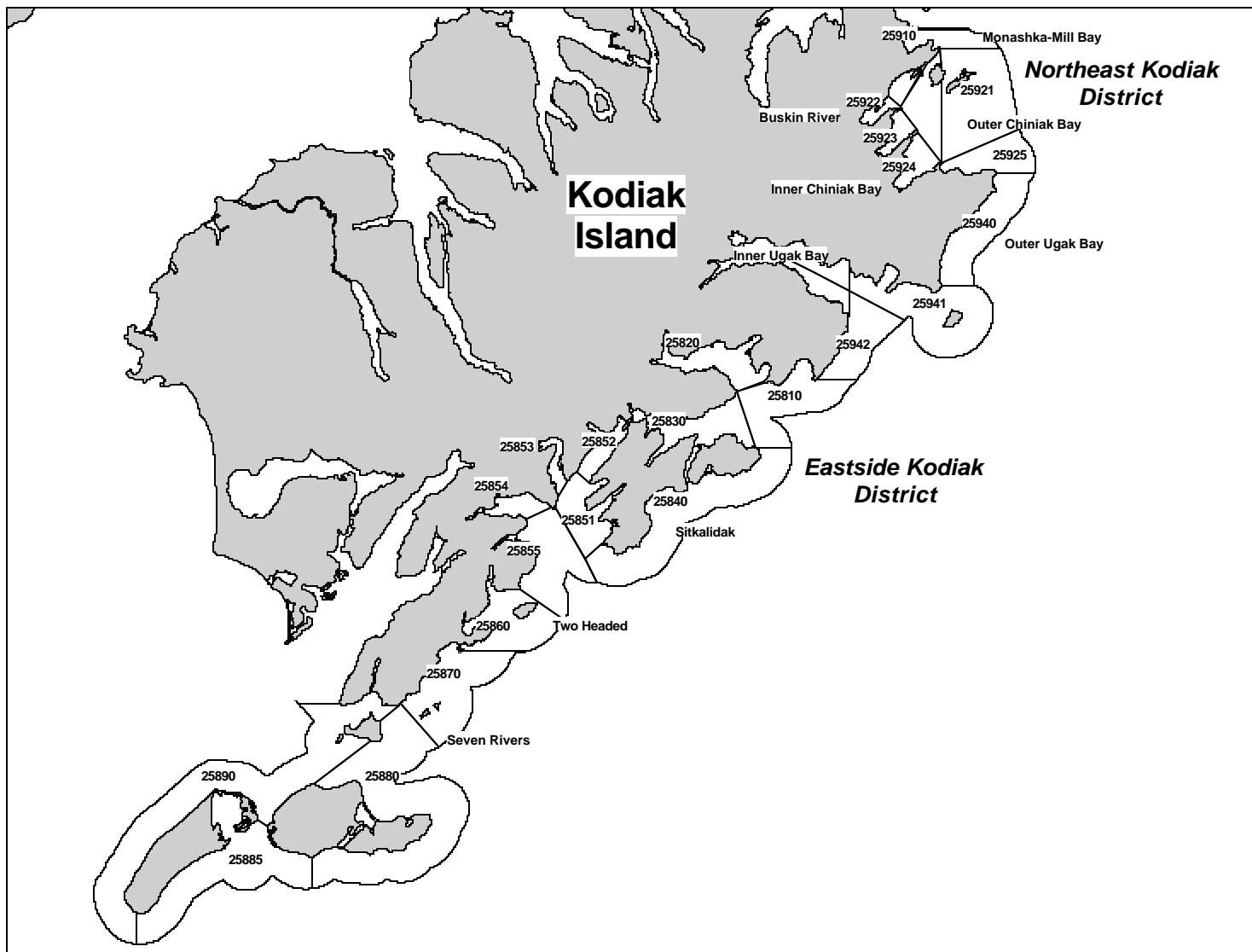


Figure 6. Map of the Northeast Kosiak and Eastside Kodiak districts identifying commercial salmon fishing sections and statistical areas.

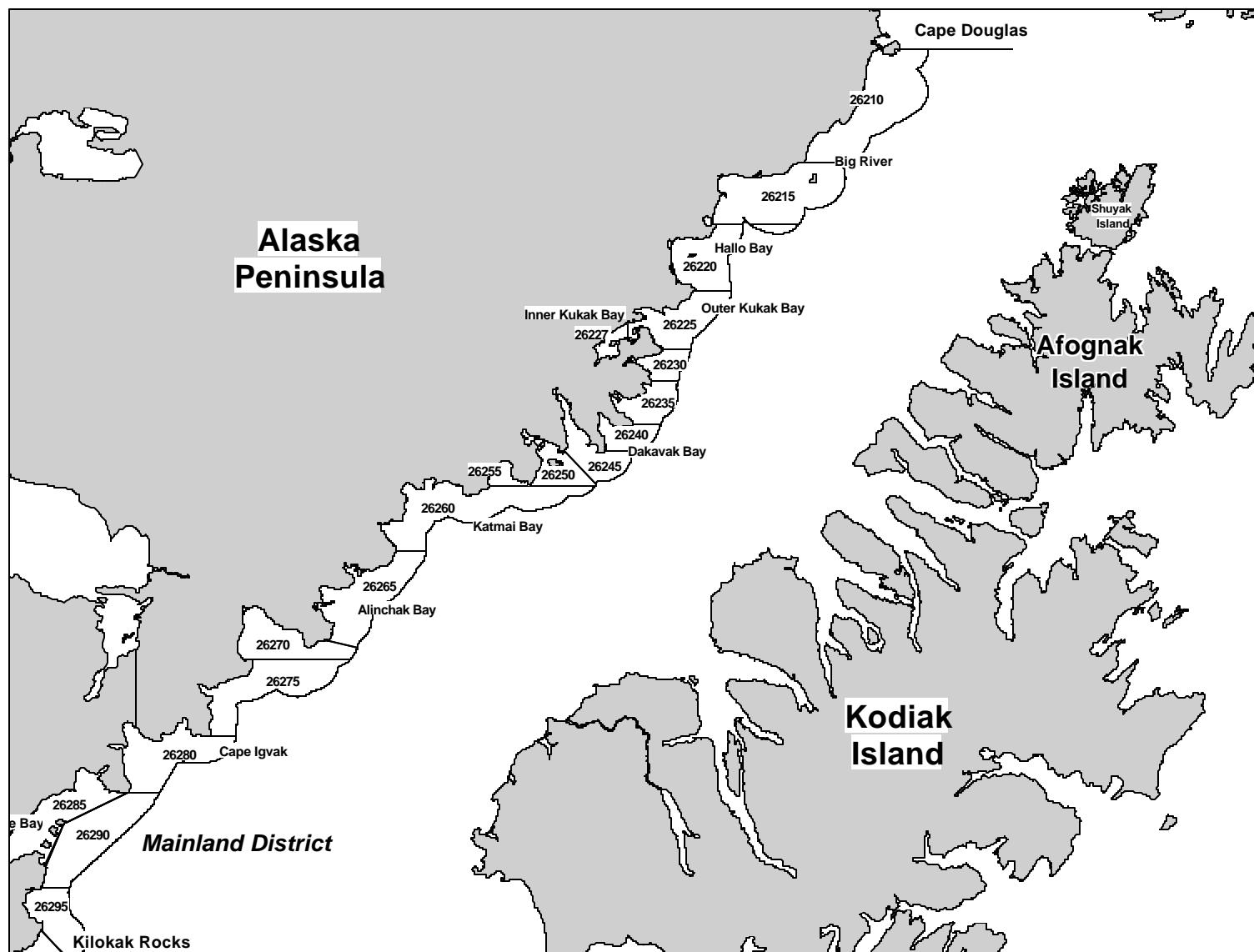


Figure 7. Map of the Mainland District identifying commercial salmon fishing sections and statistical areas.

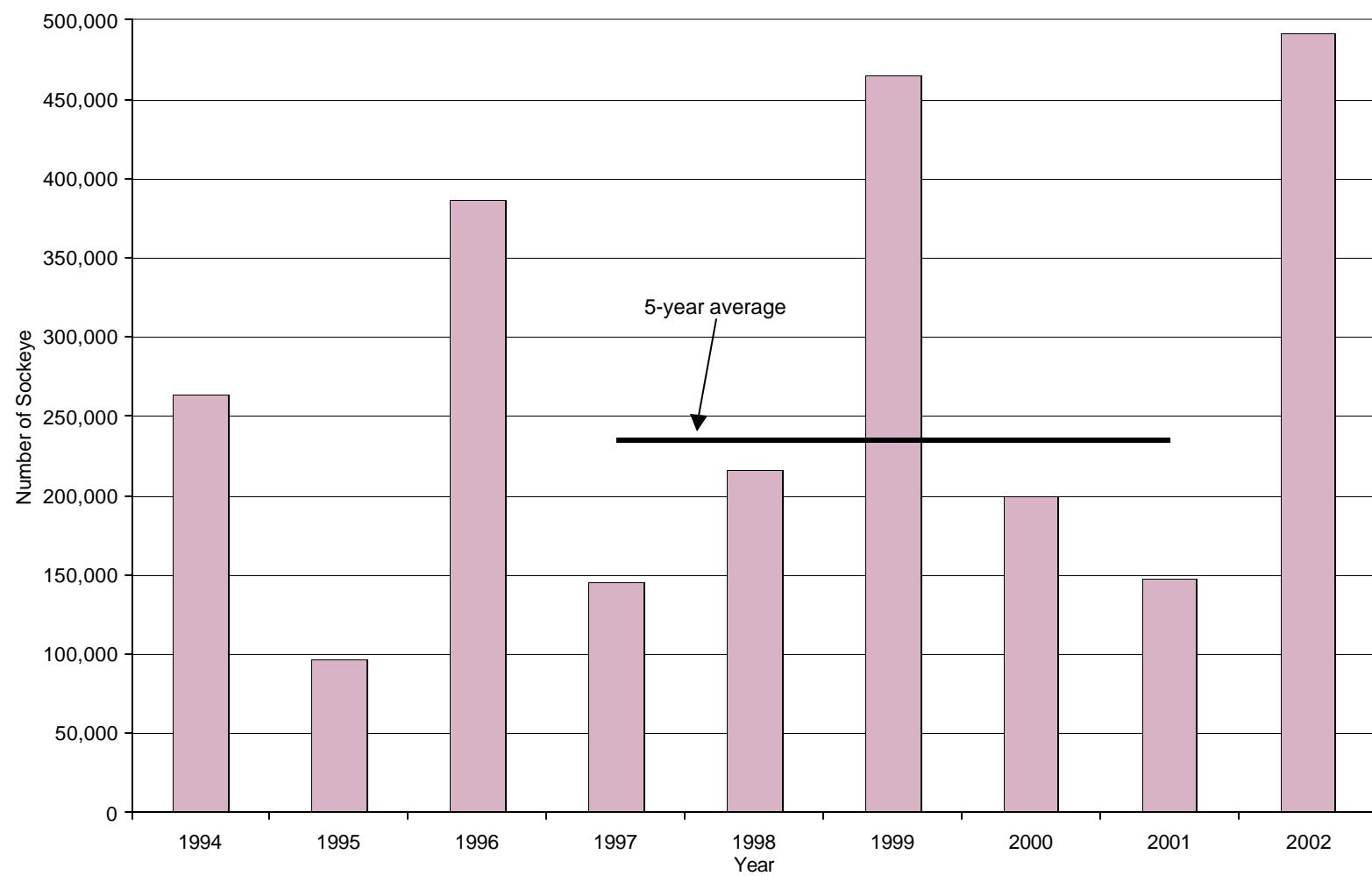


Figure 8. Spiridon Lake sockeye salmon catch (run) estimates, 1994-2002, and the recent 5-year average estimated run (1997-2001).

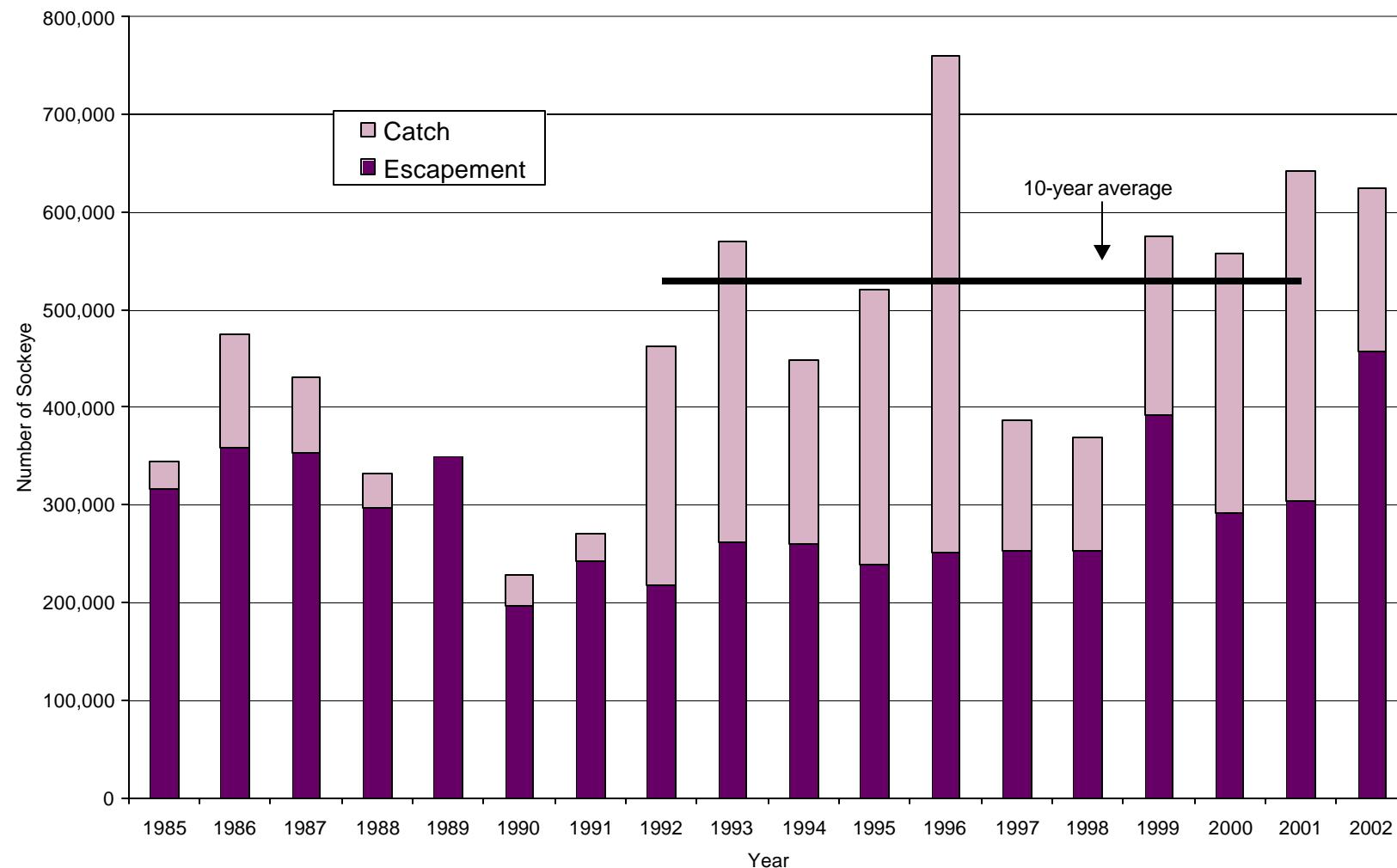


Figure 9. Karluk Lake early-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001).

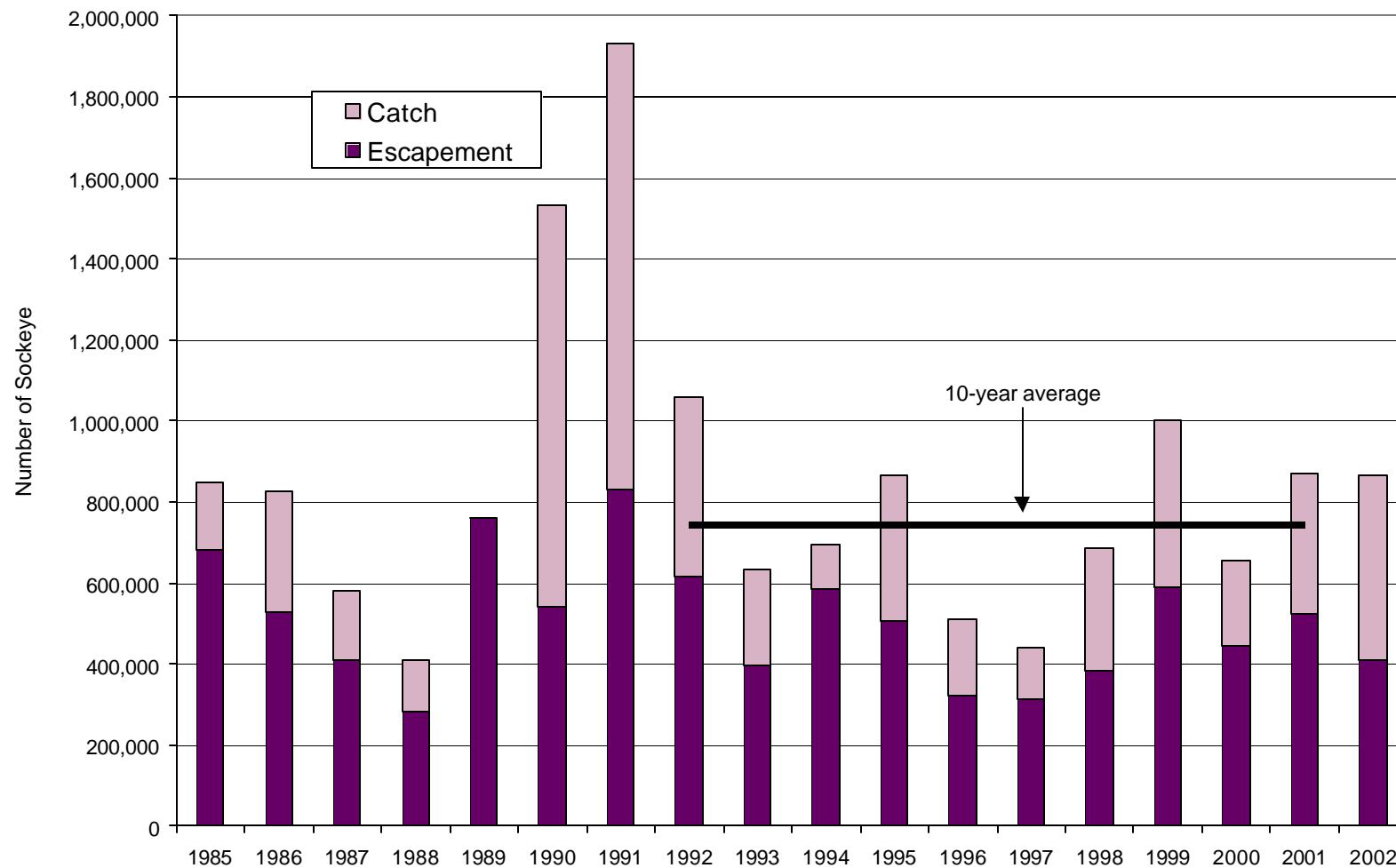


Figure 10. Karluk Lake late-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001).

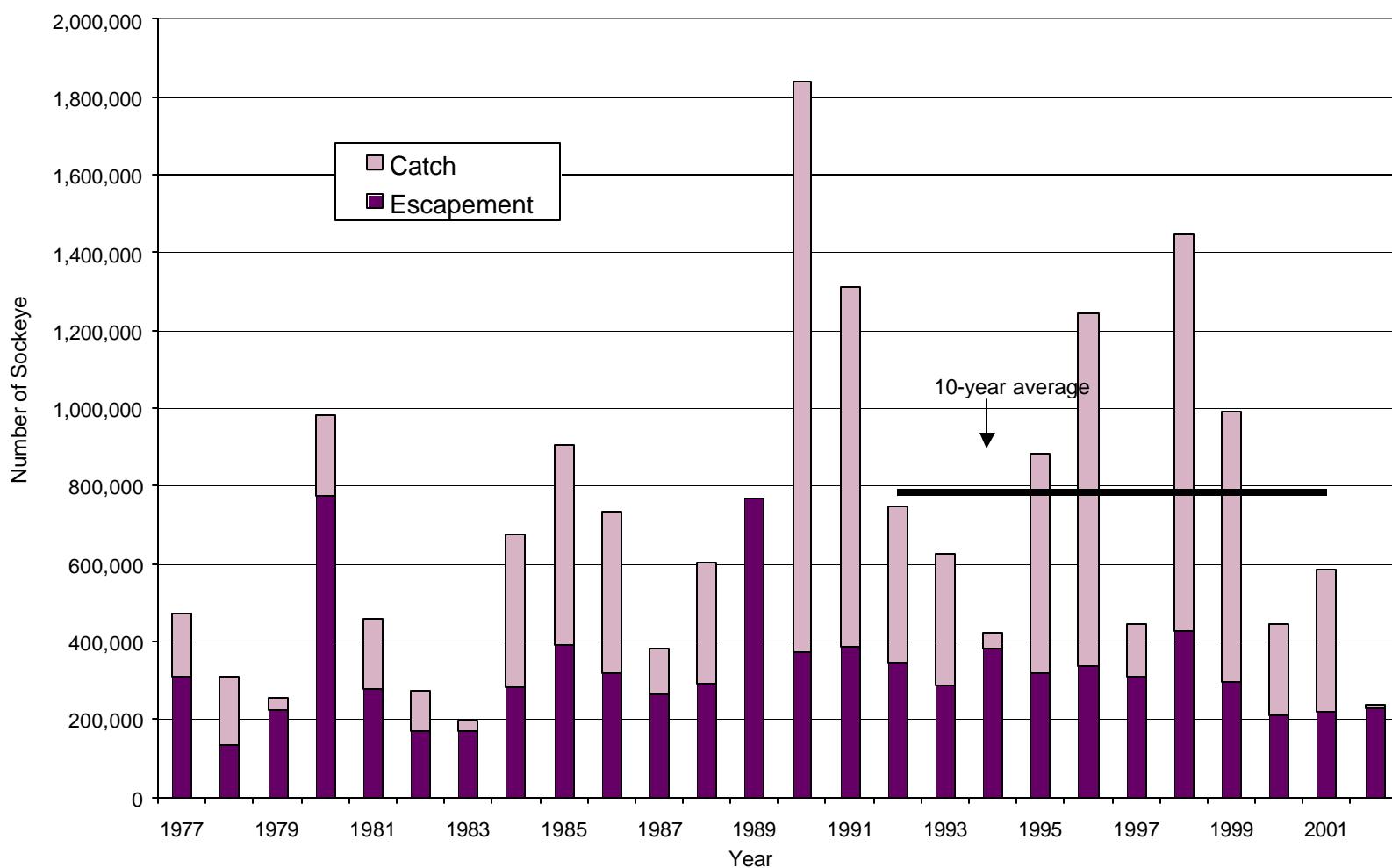


Figure 11. Red Lake (Ayakulik River) sockeye salmon escapement, catch, and run estimates, 1977-2002, and the recent 10-year average estimated run (1992-2001).

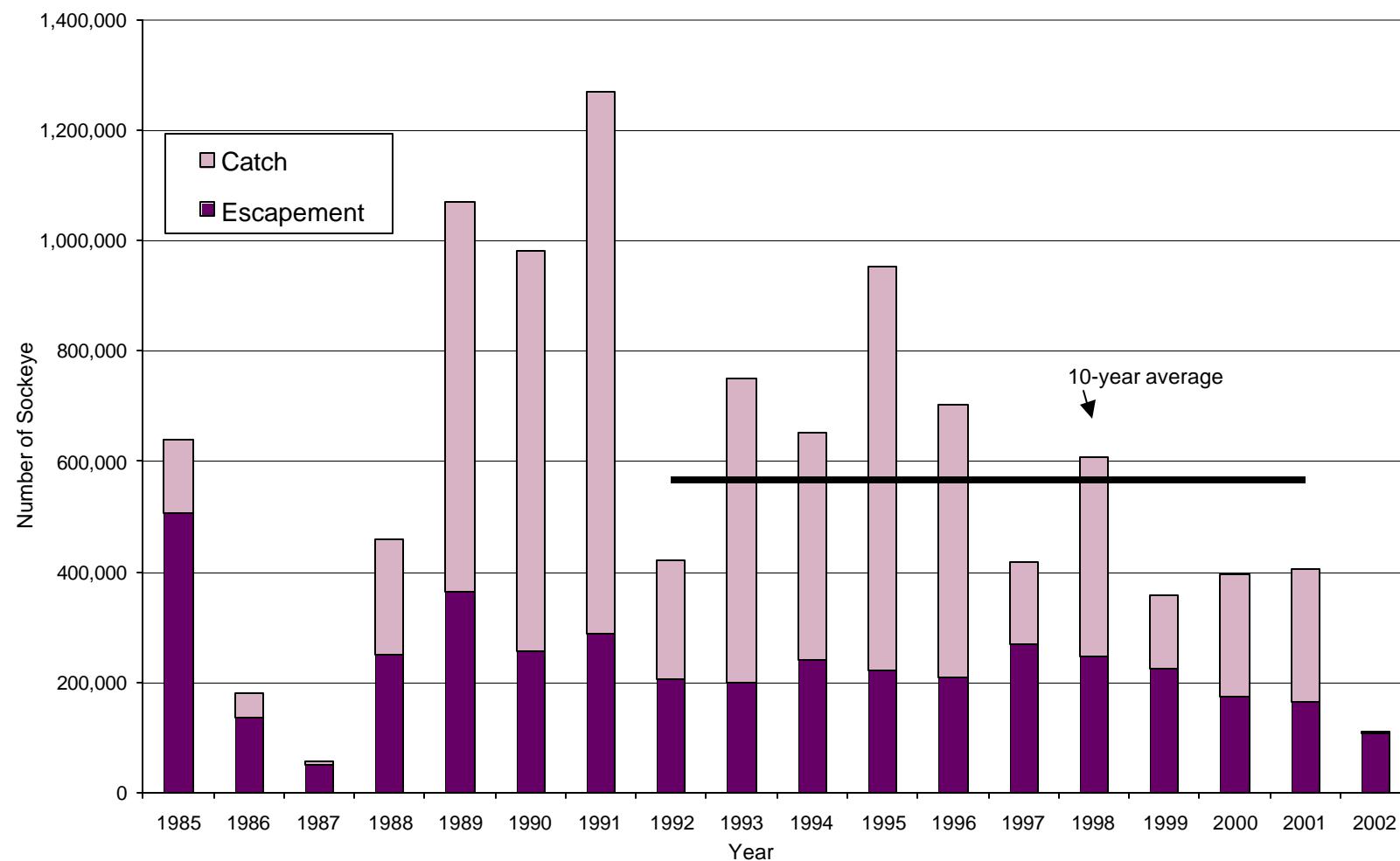


Figure 12. Frazer Lake sockeye salmon escapement (Dog Salmon weir counts), catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001).

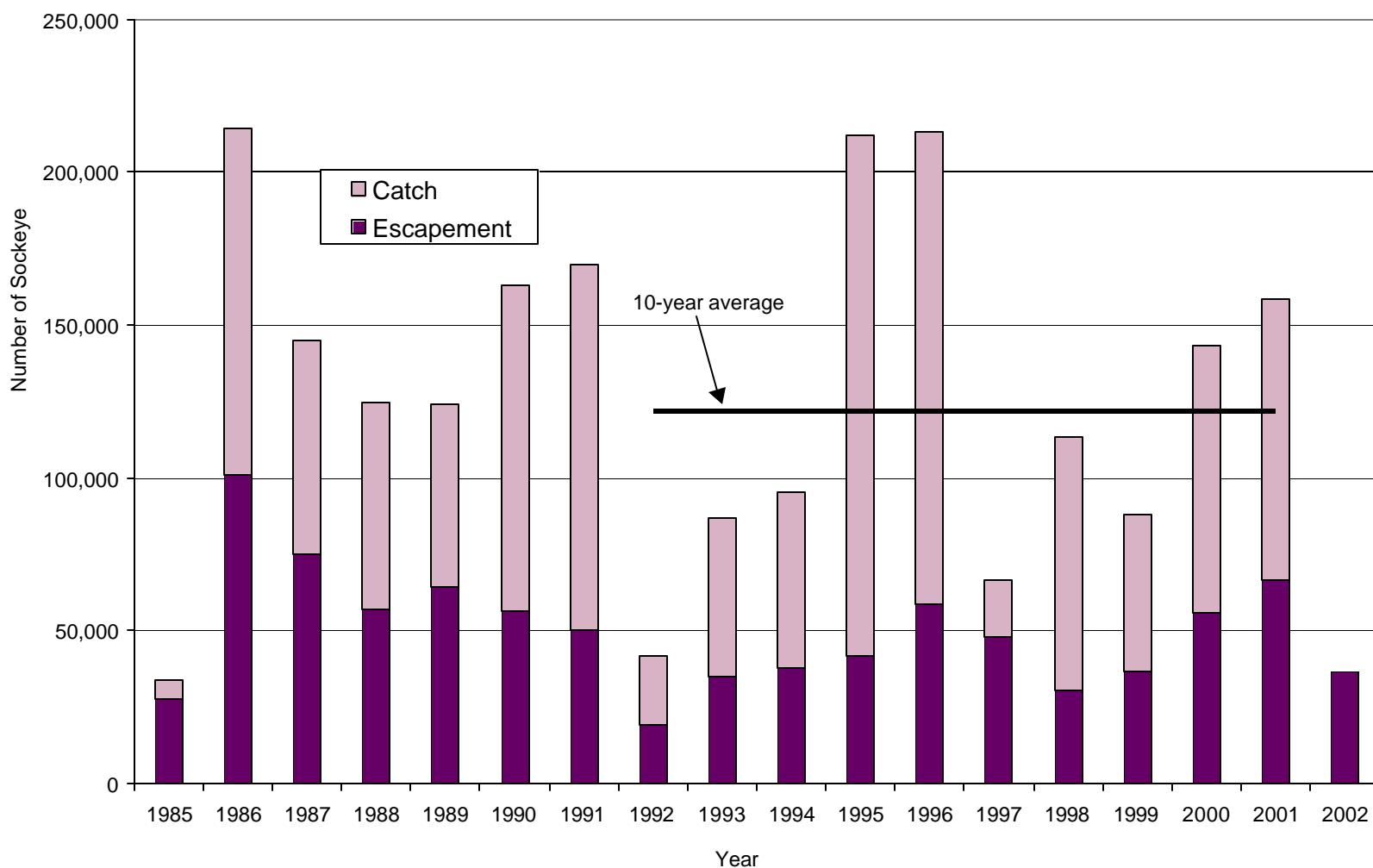


Figure 13. Olga Lakes (Upper Station) early-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001).

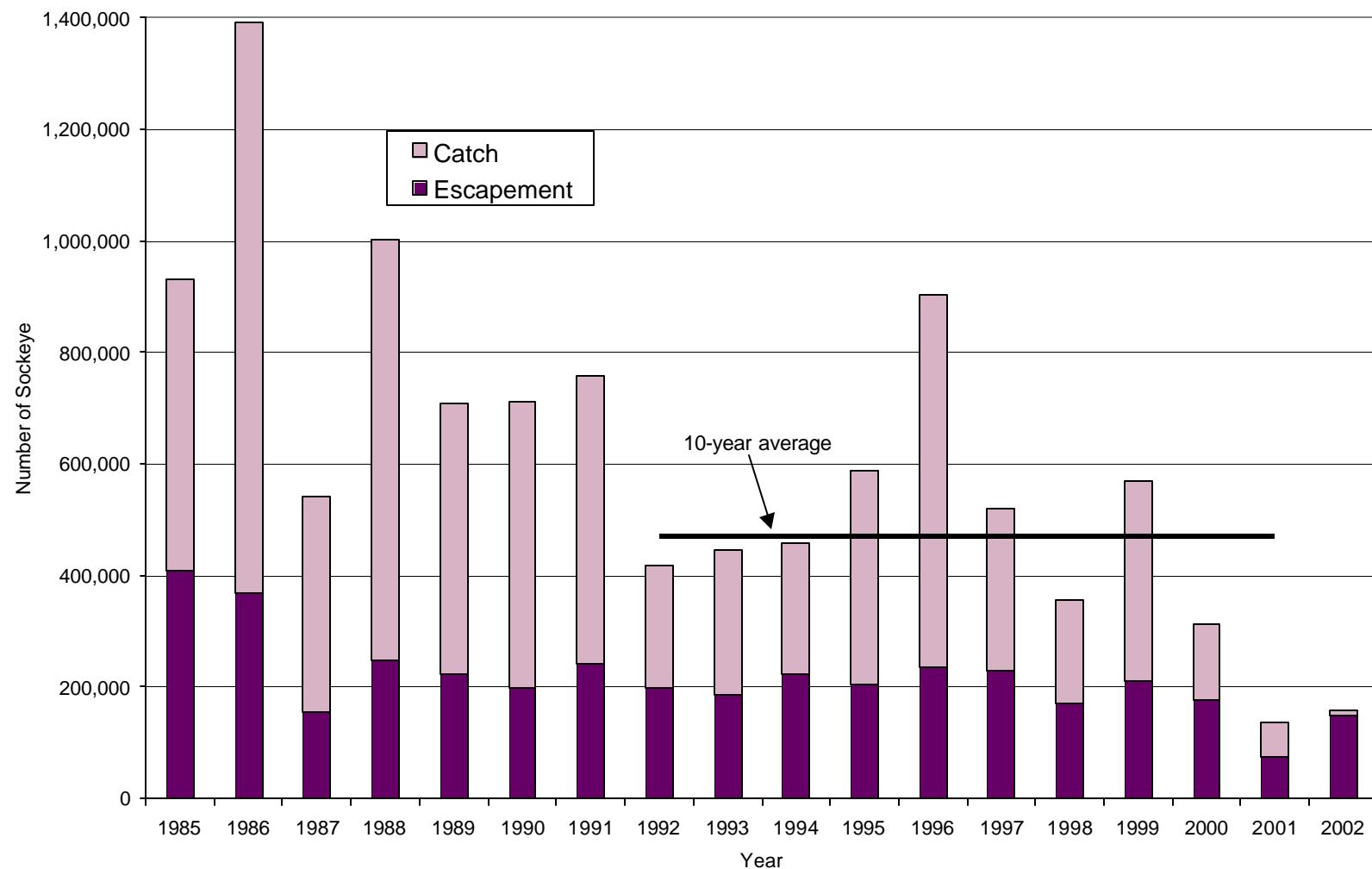


Figure 14. Olga Lakes (Upper Station) late-run sockeye salmon escapement, catch, and run estimates, 1985-2002, and the recent 10-year average estimated run (1992-2001).

The Alaska Department of Fish and Game administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility, or if you desire further information please write to ADF&G, P.O. Box 25526, Juneau, AK 99802-5526; U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington, VA 22203 or O.E.O., U.S. Department of the Interior, Washington DC 20240.

For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-6077, (TDD) 907-465-3646, or (FAX) 907-465-6078.